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ABSTRACT

The Workforce Investment Act of 1998 provided states with a great amount of flexibility in the implementation of a system-wide approach to job training and workforce development. The legislation consolidated employment and training services into a one-stop system that is known as JobLink Career Centers in North Carolina. This document presents findings from a customer satisfaction survey comparing JobLink Career Centers located on selected community college campuses to customer satisfaction survey results gathered from the Employment Security Commission (ESC) JobLink Career Centers to determine if community college hosted JobLink Centers have a higher customer satisfaction rating than Centers hosted by the ESC. The report includes a review of the literature on customer satisfaction in service industries, the Workforce Investment Act of 1998, and the role of community colleges and student services in workforce development. The research design is outlined along with major findings and recommendations for further study. The author identifies six contributions of this study including the establishment of significant differences in the customer satisfaction ratings between community college JobLink Career Centers and the ESC Centers. Appended are copies of the survey instrument, Workforce Development Goals, and a list of programs by state agency. (Contains 94 references.) (RC)

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ABSTRACT

DEESE, STEPHANIE. Customer Satisfaction: A comparison of Community College and Employment Security Commission Joblink Career Centers in North Carolina. (Under the direction of Dr. George A. Baker III.)

The Workforce Investment Act of 1998 (U. S. Department of Labor, 1998a) gave states a great amount of flexibility in developing and designing a system-wide approach to job training and workforce development. This federal legislation consolidated employment and training services into a One-Stop delivery system that is known as JobLink Career Centers in North Carolina. Customer satisfaction was a key provision of this legislation and significant emphasis was placed on gathering customers' opinions about the services they received in order to improve the quality and delivery of those services. In North Carolina, little has been done systematically to gather customers' opinions. The purpose of this study was to conduct a customer satisfaction survey comparing JobLink Career Centers located on selected community college campuses to customer satisfaction survey results gathered from the Employment Security Commission (ESC) JobLink Career Centers to determine if community college hosted JobLink Career Centers have a higher customer satisfaction rating than Centers hosted by the ESC. This study replicated the same survey instrument used by the ESC.

In Chapter One, the problem statement was presented, and in Chapter Two the researcher provided a review of the literature on customer satisfaction in service industries, provided a review of the WIA, and discussed the role of community colleges and student services in workforce development. In Chapter Three, the reseacher described the methodology design, and the hypotheses to be tested. In Chapter Four, the findings of the research were identified and in Chapter Five, the researcher provided a discussion concerning the findings, and recommendations for further study. The five null hypotheses were rejected at the $p < 0.05$ level of significance.

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DEDICATION

This dissertation is dedicated to the loving memory of my mother and brother.

Dr. Gloria Jones Simmons

1933 – 1990

Dannie Edward Deese Jr.

1954 – 1987

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You do not walk throught this world alone. During my life journey there have been many individuals that influenced my course of action and my commitment to obtain a higher education degree. To those individuals I will be eternally grateful for their inspiration.

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BIOGRAPHY

Stephanie Deese was born October 15, 1952, in Wilmington, North Carolina. Following her 1970 graduation from Kenmore West Senior High School in Kenmore, New York, she attended Heidelberg College in Tiffin, Ohio, where she graduated with a Bachelor of Arts degree in psychology and education in 1974.

Deese began her career in job training shortly after graduation, when she was employed by the Native American Manpower Program in Buffalo, New York. In 1976, she relocated to Asheville, North Carolina where she was employed by Buncombe County local government as the Chief of Planning and Evaluation. In 1985, she moved to Raleigh, North Carolina and began her career with the North Carolina Community College System. Her current job title is the Director of Workforce Initiatives in the Economic and Workforce Development Division.

In 1995, she received a Master of Arts degree in adult education from North Carolina State University. It is anticipated that in 2002, she will receive a Doctor of Education degree in higher education leadership from North Carolina State University in Raleigh, North Carolina.

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CHAPTER ONE: INTRODUCTION TO THE PROBLEM

Overview of the One-Stop Delivery System

Providing high quality customer service has become one of the most important themes in America today (U. S. Department of Labor, 1998b). The lessons learned from the quality movement in the private sector are gradually being applied to the public sector. Concepts like a customer-focused organization, continuous improvement, and employee involvement are taking root across all levels of government, from federal, state and local levels (Scheuing & Christopher, 1993). The nation's workforce development community is no exception. At its core, employment and training programs are part of the service industry. As such, a strong customer focus is critical to its success. There is no better way to do this than to analyze your customer's needs (U.S. Department of Labor, 1998; Drucker, 1989).

The composition of today's labor market has continued to change as the population shifts and our economy changes from a national to a global marketplace; from a manufacturing to a service economy; and from a youth-oriented workforce to a middle-aged workforce (Zeiss, 1998; Roueche & Roueche, 1998). As a result of the changing workplace and the changing labor market, Congress approved and passed the federal Workforce Investment Act (WIA) of 1998, Public Law 105-220, on August 7, 1998 (U. S. Department of Labor, 1998a). The intent of the WIA is to create a framework for a unique

national workforce preparation and employment system designed to meet both the needs of the nation's businesses and the needs of job seekers and those who want to further their careers (U. S. Department of Labor, 1998a). The Act builds on the most successful elements of previous federal job training legislation. The Workforce Investment Act introduced a new strategy of service delivery – the One-Stop Center. The One-Stop concept is designed to provide customers with information about and access to job training, education, and employment services at a single neighborhood location. The most important tenet of the Act is the opportunity to create a local service delivery system that meets the employment, education or training needs of individuals. Workforce development services are streamlined by requiring that a number of federally-funded workforce programs participate in the One-Stop centers. Key components of the WIA legislation (U. S. Department of Labor, 1998a) will enable customers to easily access the information and services they need through the One-Stop delivery system, to empower adults to obtain the training they find most appropriate through Individual Training Accounts (ITAs), and to ensure that all State and local programs meet customer expectations. Customers will be able to receive a preliminary assessment of their skill levels, obtain information on a full array of employment-related services, receive help in evaluating eligibility for job training and education programs or student financial aid, obtain job search and placement assistance, and have access to up-to-date labor market information (U. S. Department of Labor, 1998a). Figure 1.1 graphically

illustrated this new delivery system. Customer satisfaction is a primary element of the Workforce Investment Act of 1998, and as such, the legislation placed significant emphasis on gathering customers' opinions and using the data to continuously improve the quality and the delivery of services and to improve the appearance of the One-Stop Career Centers, (U. S. Department of Labor, 1998a). These One-Stop Centers are called JobLink Career Centers in North Carolina (North Carolina Department of Commerce, 1999a).

Problem Statement

The success of the JobLink Career Centers is largely dependent upon the quality of the services provided by the centers, as measured both by quantitative and qualitative performance and by customer satisfaction measures. In order to ensure continuous improvement in Career Center services and customer satisfaction, North Carolina engaged in the process of developing a customer satisfaction system. A Customer Satisfaction Project Team, comprised of staff from the Governor's Commission on Workforce Development and the North Carolina Employment Security Commission (ESC), worked with a consultant from the University of Maryland to develop an appropriate customer satisfaction survey and execution methodology (North Carolina Department of Commerce, 1999b). The original intent of the Commission on Workforce Development's survey was to administer the survey system-wide to capture data on the respondents, so that results could be analyzed according to particular

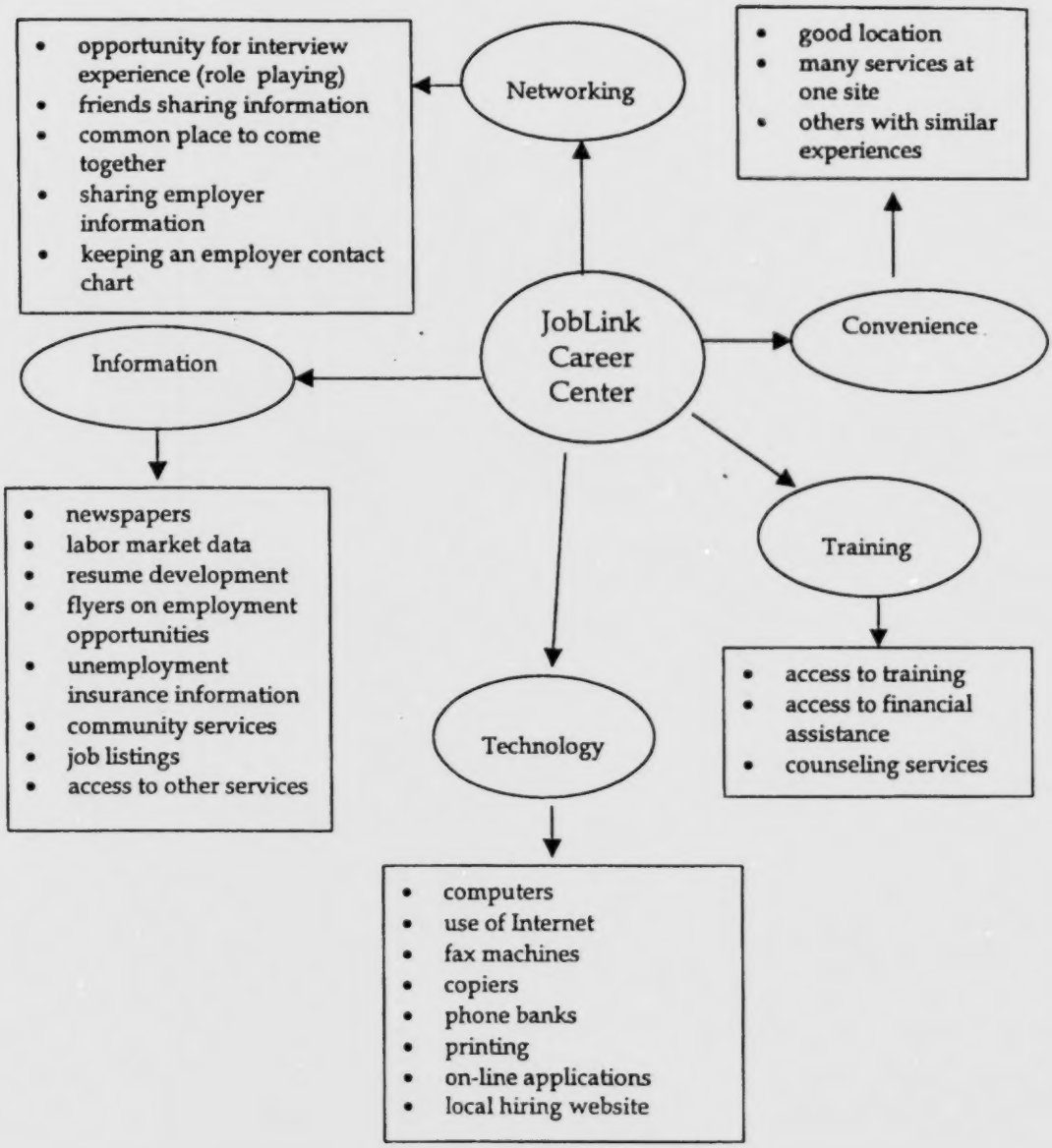

Figure 1. 1. Model of centralized services in a One-Stop Career Center illustrating the various services that are available for customers.

career center sites. The survey results would have been received and analyzed at the state level and then forwarded to local JobLink Career Centers and local

Workforce Development Boards so that appropriate and continuous process improvement strategies could be developed and implemented.

The Employment Security Commission of North Carolina hosts some fifty JobLink Career Centers in local Employment Services offices, while community colleges host some thirty centers on community college campuses (North Carolina Department of Commerce, 1999b). In November of 2000, the Employment Security Commission (ESC) sent the customer satisfaction survey to local ESC offices that host JobLink Career Centers in an effort to determine customer satisfaction levels from services received from ESC JobLink Career Centers. While the State partnered with the ESC in developing a customer satisfaction survey, the survey was not administered to the community colleges that host JobLink Career Centers on their campuses or to other locally hosted JobLink Career Centers. Thus, the customer satisfaction data collected only reflected customer satisfaction ratings from the JobLink Career Centers hosted by local ESC offices.

The federal Workforce Investment Act legislation gave states a great amount of flexibility in developing and designing the local One-Stop delivery system. How much credit was given to the customer's point of view and perception as this new system was being built? Who asked the customers if the one-stop design has made it easier for them to get the services they need? Is there a higher customer satisfaction level from community college-housed JobLink Career Centers? These are the primary questions that need to be

addressed before we move forward in building this new One-Stop delivery system. Though the Workforce Investment Act included a customer satisfaction component, a comprehensive ongoing system of customer satisfaction measurement has yet to be deployed in North Carolina. The JobLink Career Center customer survey helped to resolve these questions and lend support to the active participation of community colleges in JobLink Career Centers whether housed on community college campuses or not.

Additionally, a report prepared in 2000 by MDC, Inc. of Chapel Hill, North Carolina, revealed certain data that provided further rationale for this study (MDC, 2000a). These data indicated that community college-housed centers and diverse centers (centers that are housed at agencies or independent sites not belonging to a community college or local ESC office), generally had greater full-time, on-site participation by the principal partners mandated by the Workforce Investment Act than did the ESC-housed centers. In addition, the data revealed that community colleges were very limited partners at ESC-housed centers, while ESC was a very limited partner at community college-housed centers. This seemed to point to a lack of cooperation between agencies as a potential hindrance to the development one-stop centers in North Carolina and in the delivery of quality services within those centers (MDC, 2000a). While these data may have reflected on-site partner agency participation problems at the JobLink Career Centers, it is important to evaluate the customers' perceptions and to determine if the quality of services is greater when a strong

community college presence is in the center. MDC, Inc. (2000b) stated in their report, "Therefore, the underlying thought is that customers have a higher satisfaction with services received from community colleges' JobLink Career Centers compared to local JobLink Career Centers housed at local ESC offices" (p. 7).

Conceptual Framework

Theory is a mental construct that arranges our expectations and responses to phenomena in the world. It is the lens through which we investigate questions and interpret data (LeCompte & Preissle, 1993). The conceptual framework for analysis in this study was depicted in Figure 1.2.

Figure 1.2 showed the hypothesized relationship between community college JobLink Career Centers when student services divisions are involved as an integral part of the design of the centers. The figure illustrated a higher customer satisfaction rating for community college JobLink Career Centers when compared to the ESC JobLink Career Centers because of the involvement of the student services divisions. Since the JobLink Career Centers were designed to be a new system for the delivery of job training and consolidated services, it was important to measure whether the customers received the kind of services intended by the Workforce Investment Act of 1998. Using the MDC (2000a, 2000b) reports as a basis, this study analyzed the responses of customers' perceptions of services received from the JobLink Career Centers hosted by the two agencies.

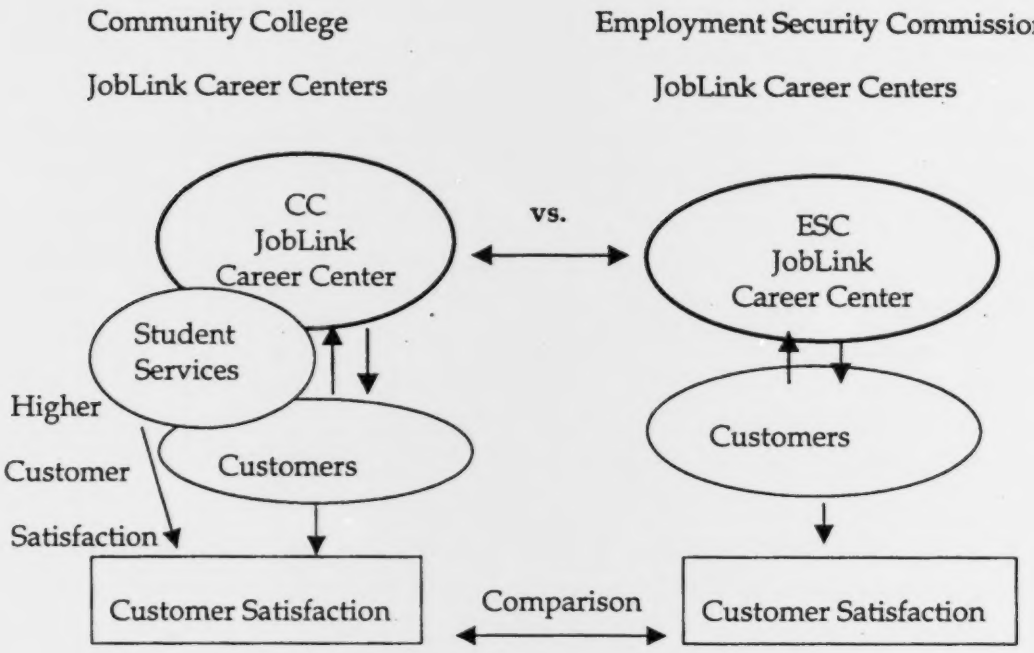

Figure 1. 2. Conceptual Framework for customer satisfaction between ESC and community colleges' JobLink Career Centers. The model illustrates the addition of student services to the community college JobLink Career Center model.

Purpose of the Study

The following purpose guided the development of the study and the subsequent research questions and hypotheses. The purpose of this study was to determine if there were differences in customers' opinions of JobLink Career Centers hosted by select community colleges when compared to customers' opinions of JobLink Career Centers hosted by the local offices of the Employment

Security Commission using the original customer satisfaction survey developed by the State team.

Research Questions and Hypotheses

The over-arching conceptual framework that guided this study was to determine if there were differences between the level of customer satisfaction of customers that received services from a JobLink Career Center hosted by selected community colleges and of customers that received services from the Employment Security Commission hosted JobLink Career Centers. This survey replicated the survey instrument originally created by the Customer Satisfaction Team and used by the Employment Security Commission.

Following are the specific research questions and the corresponding null hypotheses that were tested in this study:

Research Question One: Are there any significant differences in the **facilities** between the two data sets?

H_0^1: There are no significant differences in the customer satisfaction rankings for facilities between the community college JobLink Career Centers and the ESC JobLink Career Centers.

Research Question Two: Are there any significant differences in the **staff services** between the two data sets?

H_0^2: There are no significant differences in the customer satisfaction rankings for staff services between the community college JobLink Career Centers and the ESC JobLink Career Centers.

Research Question Three: Are there any significant differences in the **services** between the two data sets?

H_0^3: There are no significant differences in the customer satisfaction rankings for service between the community college JobLink Career Centers and the ESC JobLink Career Centers.

Research Question Four: Are there any significant differences in the **self service facilities** between the two data sets?

H_0^4: There are no significant differences in customer satisfaction rankings in the self service facilities between the community college JobLink Career Centers and the ESC JobLink Career Centers.

Research Question Five: Are there any significant differences in the **overall rating of services** between the two data sets?

H_0^5: There are no significant differences in the customer satisfaction overall rating of services between the community college JobLink Career Centers and the ESC JobLink Career Centers.

Key Terms

The following key terms may be useful within the context of this study:

Commission on Workforce Development	The Governor's appointed Commission to oversee the State-wide implementation of the Workforce Investment Act.
Customer	Those individuals who directly benefit from the services provided.

Customer Satisfaction	The degree in which an agency meets or exceeds the expectations of the individual job/training seekers.
Department of Commerce (DOC)	The North Carolina agency responsible for administering the Workforce Investment Act (WIA).
Department of Social Services (DSS)	The North Carolina agency that administers Temporary Assistance to Needy Families (TANF) and welfare reform programs.
Employment Security Commission (ESC)	The North Carolina agency responsible for labor exchange, with ninety local offices across the state.
JobLink Career Center	User-friendly facilities that provide job seekers and employers access to a variety of employment and training services all under one roof. North Carolina's name for One-Stop centers.
Job Ready	The North Carolina school-to-work transition program for K-12 students.
One-Stop Career Center	The federal term given to the States' creation of comprehensive centers for employment and training access and information.
Vocational Rehabilitation (VR)	The North Carolina agency responsible for services to the handicapped and disabled.
Workforce Development Boards (WDB)	The local sub-state governance structure for the implementation of the Workforce Investment Act (WIA).

Workforce Investment Act (WIA)	Federally-funded legislation authorizing the state and local communities to develop a new workforce delivery structure through One-Stop career centers.

Summary of Introduction

In Chapter One the researcher provided an overview of the Workforce Investment Act of 1998, and gave an explanation of the dissertation research. The One-Stop delivery system was introduced and the emphasis on and the importance of customer satisfaction were explained. The problem statement and conceptual framework for analysis were introduced. The purpose for the study, the research questions, and the five hypotheses were presented. Additionally, the key terms that were helpful in understanding the study were defined.

The remainder of this dissertation was organized as follows: In Chapter Two, the researcher provided a review of the literature pertinent to workforce development policies in North Carolina, customer satisfaction, the role of community colleges and their student service divisions in workforce development, and a review of the Workforce Investment Act. In Chapter Three, the researcher provided a rationale for the methods used for this study, the research design, the methodology, and the data analysis employed in this study. In Chapter Four, the researcher identified the results of the research and the five null hypothesis were rejected at the $p < 0.05$ level of significance. The researcher

concluded this study in Chapter Five, with a discussion of the results of the research and provided recommendations for futher study.

CHAPTER TWO: A REVIEW OF THE LITERATURE

Customer Satisfaction in Service Industries

Customer-focused services, provided in a high-quality fashion, are of paramount importance to business today. In an increasingly competitive environment, industries understand that they will no longer remain successful if they do not provide the best possible customer service (Osbourne & Gaebler, 1992). The renewed emphasis is even more pronounced in the service industries, where service is the actual product being sold (U.S. Department of Labor, 1998b).

In the past, the employment and training community violated a central tenet of customer service. Employment and training practitioners assumed that they knew what the customers thought, what the customers wanted, and what the customers needed (U. S. Department of Labor, 1998b). Customers were viewed as external to the organization and not seen as an integral part of the delivery design strategy. In their book Winning the Service Game, Schnieder & Bowen (1995) state that one of the most important principles in providing service quality is to "never divorce the customer from thoughts about what a service business really is or how it should be managed. Customers are part of your firm" (p. 56). The management experts, from Peters and Waterman (1982) to Drucker (1982) and Deming (1986) dwell on the importance of listening to the voice of the customer. Osbourne & Gaebler (1992), in their book Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector, introduced the phrase "entrepreneurial government" (p. xix) to describe the new

model emerging across America in the governmental programs. This model identifies how government is moving more toward meeting the needs of the customers and focusing on the customers' viewpoints and perspectives on the services they receive. Osbourne and Gaebler (1992) stated that most American governments are customer-blind, while private sector companies are customer-driven. They explained this simply by stating, "most public agencies don't get their funds from their customers" (p. 167). While businesses are striving to please customer-based groups, public agencies strived to please various interest groups. Only recently did public agencies begin to define their customers.

The term "customer" has many different meanings to different groups. Customers of the employment and training programs are those individuals who directly benefit from the services provided. Customer satisfaction can be defined as the degree in which an agency meets or exceeds the expectations of the individual job or training seeker (U.S. Department of Labor, 1998b). However, customer satisfaction is not the same as customer service. Customer satisfaction is measured by the customers' standards: it is what is important to them, or what makes them satisfied or dissatisfied with a particular service. It is a combined total of the quality and the service that defines customer satisfaction (Barsky, 1995). Table 2.1 defined the customer satisfaction expectations. Customer service is measured by standards set by authorities, boards, or experts (U.S. Department of Labor, 1998b). Customer service and customer satisfaction is measured by the customers' experience (Barsky, 1995).

Table 2. 1 Customer Satisfaction Expectations

Customer Satisfaction Expectations	
Availability of Services	The degree to which customers can readily and easily contact the organization
Responsiveness of Services	Reacting promptly to the customer
Timeliness of Service	Providing services within the customer's time frame
Comprehensiveness of Services	The degree to which the service is complete
Pleasantness of Service	The degree to which suitable professional behavior and manners are used while working with the customer
Reliability of Services	Whether the organization does what it promises customers it will do
Overall Satisfaction with Services	The degree to which the customers are satisfied with the services they receive

Note. Adapted from Osbourne & Gable, 1992, Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector.

Table 2.2 illustrated the basic concepts of measuring customer satisfaction. As customer satisfaction measurement programs become more widespread and

mature, there is an increasing demand for practical findings and recommendations rather that just statistical data (Scheuing & Christopher, 1993).

Table 2. 2 Basic Concepts of Measuring Customer Satisfaction

Basic Concepts Of Measuring Customer Satisfaction	
Area of Concern	Sources/Concepts
Gathering background data	Qualitative research, customer complaints
Choosing attributes to measure	Importance scores
Deciding the basic questions	Frequency, timelines
Selecting Customers	Group customers for comparisons
Interpret measures correctly	Separate common causes from special causes

Note. Adapted from Chakrapani, C. (1998). How to Measure Service Quality and Customer Satisfaction.

Additionally, customer satisfaction measures are concerned with the ease of information flow for the customer, the comfortableness of the environment, and the accesssibility of staff to assist the customer (Janakowski, 1997). In North Carolina, little has been done systematically to gather customer satisfaction

ratings to determine whether customers were satisfied with the services received from the JobLink Career Centers or to determine ways in which to improve the services of the JobLink Career Centers within North Carolina.

Traditional public institutions still offer one-size-fits-all services instead of specializing services based on the customers' needs (Osbourne & Gaebler, 1992). Table 2.3 described the ten dimensions of service quality. While customers were experiencing a variety of choices in other realms and have become accustomed to making choices in the private sector, the standardized approach that public agencies used will continue to drive the customers elsewhere. Osbourne & Gaebler (1992) further stated:

> The single best way to make public-service providers respond to the needs of their customers is to put resources in the customers' hands and let them choose. All the listening techniques listed above are important, but if the customers do not have a choice of providers—schools, training programs, motor vehicles offices—they remain dependent on the goodwill of the provider. The providers are in the driver's seat, and customers can only hope they drive where the customer wants to go. When the customers control the resources, on the other hand, they choose the destination and the route. (p.180)

Customers have expectations about how the interaction with the service deliverer unfolds (Schneider & Bowen, 1995). Will the service be delivered

Table 2. 3 Ten Dimensions of Customer Quality

Ten Dimensions Of Service Quality	
Customer Expectations	Outcome
Reliability	Consistency in performance and dependability.
Responsiveness	Willingness or readiness to provide service, timeliness of service.
Competence	Possessing the required skills and knowledge to perform the service.
Access	Approachability and ease of contact, ie. waiting time, ease of phone service.
Courtesy	Politeness, respect, friendliness of service personnel.
Communication	Keeping customers informed in language they understand and by listening to them.
Credibility	Trustworthiness, believability, honesty.
Security	Freedom from danger and risks.
Knowing the customer	Making an effort to understand the customer's needs.
Tangibles	Physical evidence of the service, appearance of personnel, appearance of the facility.

Note. Adapted from Schneider & Bowen. (1995). Winning the Service Game.

quickly, competently, courteously? Second, will the service delivery person have the necessary tools (computers, access to information) to provide the service? Third, does the service encounter occur in a physical setting that fits the nature of the service being delivered? (Schneider & Bowen, 1995). Customers' expectations are important in determining customer satisfaction because quality is a judgment against some standard (Barsky, 1995). When customers evaluate the quality of a service, they are evaluating it against a standard or against their perceived expectations (Osbourne & Gabler, 1992).

Customers bring a complex set of expectations to the service they encounter. Not only how well the service is provided will be judged, but the delivery mechanism will be judged also. Customers have expectations about how they are treated, and as such, bring with them a predetermined set of standards (Osbourne & Gabler, 1992). Customers also have expectations about the facilities where the service was delivered: was the facility clean, attractive, inviting? The challenge for service industries is to discover the specifics associated with customer expectations that correspond to the ten dimensions listed in Table 2.3 and to create conditions that conform to the customers' expectations. The key to service quality is the degree to which the organization can meet the customers' expectations for a wide variety of service quality attributes (Chakrapani, 1998).

A Historical Review of North Carolina's Policies Concerning Workforce Development

North Carolina's broad economic and workforce development goals were developed after a long state commitment to workforce development and economic development policy. North Carolina had a strong, solid history of bipartisan support for workforce development beginning with Governor Robert Scott's establishment of the first state level workforce coordinating council in 1972 (North Carolina Department of Commerce, 1999b). In the 1980s, Governor James G. Martin impaneled a temporary Commission on Workforce Preparedness and challenged the commission to create a market-driven and customer-focused system and to conduct a comprehensive statewide inventory of workforce development programs (North Carolina Department of Commerce, 1999c).

In 1993, North Carolina's Governor James B. Hunt issued Executive Order #4 establishing the current permanent Commission on Workforce Preparedness, designating the Commission as North Carolina's Human Resource Investment Council (State of North Carolina, 1993). Governor Hunt also appointed the State Economic Development Board, which recommended policy and direction for economic development across the state (State of North Carolina, 1993). Together, these two boards provided guidance and direction for workforce and economic development policy for the State of North Carolina.

Economic Development Board

North Carolina developed workforce and economic development goals to help ensure the employability of the state's workers and the competitiveness of the state's economy. The state's specific workforce and economic development goals, as well as the overall vision, were described in Appendix B.

In 1999, the North Carolina Economic Development Board issued Making North Carolina a High Performance State: A Comprehensive Strategic Economic Development Plan (North Carolina Department of Commerce, 1999a) which outlined the board's strategy for ensuring the state's long-term economic health. The plan identified three keys to success: high-quality jobs, high-performance enterprises, and widely-shared prosperity. In this plan, the board emphasized that the changed realities of the workplace demands continued reform and restructuring of public education and adult job training programs. The state must continue to change the way it produces a quality workforce (North Carolina Department of Commerce, 1999a). Table 2.4 listed the three major North Carolina economic development strategies.

The following vision developed by the Economic Development Board, built the framework for the recommendations contained in the report: "North Carolina will have a prosperous economy that enhances the quality of life for all its citizens, sustained by effective cooperation between the public and private sectors" (North Carolina Department of Commerce 1999a, p. 3).

The report further noted that North Carolina's economy will be characterized by an abundance of good jobs; a productive, well-educated, and well-trained citizenry capable of competing internationally; a highly diversified

Table 2. 4 Three Major North Carolina Economic Development Strategies

Economic Development Strategies		
Quality	High Performance	Shared Prosperity
Policies that reinforce the economy's capacity to generate high quality jobs that provide high wages for North Carolinians.	Policies that stimulate and encourage behavior typical of high performance enterprises, regardless of firm size or age, and investment and training by North Carolina firms to enable them to compete with the best in the world.	Policies that provide the opportunity for a good job at good wages to generate widely shared prosperity among people and places

Note: Adapted from North Carolina Department of Commerce. (1999b). Making North Carolina a High Performance State: A Comprehensive Strategic Economic Development Plan.

base of industries that are successful in domestic and international markets and that are organized to adapt quickly to changes in production technology and market demands; rural and urban communities with effective public and private leadership; and a clean and healthy environment, which is a critical factor in maintaining North Carolina's prosperity (North Carolina Department of Commerce, 1999a). The principal challenge facing the state over the next decade is not the number of jobs created, but the quality of those jobs and the ability of all people to share in them (North Carolina Department of Commerce, 1999a).

The Economic Development Board adopted six major goals and corresponding objectives to shape the state's economic development policy. These goals and corresponding objectives are located in Appendix B.

Commission on Workforce Development

The Commission on Workforce Preparedness, (later re-named the Commission on Workforce Development) was identified as the State Workforce Investment Board under the Workforce Investment Act of 1998 legislation. The Commission on Workforce Development was also the state's administrative grant recipient for the Workforce Investment Act of 1998. Since 1993, the Commission had been functioning as North Carolina's Human Resource Investment Council and issued strategic plans for 1995-1997 and 1997-1999. The first plan, entitled Building a High Performance Workforce: 1995-97 Strategic Directions for North Carolina (1997), identified the following as the basic mission

of the Commission:

> To establish and guide a world class workforce development system for North Carolina. This system will be comprehensive, integrated, relevant, and effective. It will produce well-educated, highly skilled workers who perform at high levels and work in economically viable enterprises that provide good jobs at good wages (North Carolina Commission on Workforce Development (1997), p. 4).

The Commission adopted the following statement as its vision to lead North Carolina toward a high performance workforce:

> North Carolinians will be well educated, highly skilled, life-long learners who enjoy a good quality of life. They will have good jobs at good wages and they will ensure that North Carolina's workforce is globally competitive. This workforce will attract and sustain viable enterprises and enable North Carolina's economy to be prosperous and robust (North Carolina Commission on Workforce Development, (1997), p. 2).

The 1997-1999 plan, entitled Building a Highly Competitive Workforce (North Carolina Commission on Workforce Development, 1999) also focused on three major areas for workforce development as listed in Table 2.5. The Commission identified eleven goals and forty-seven specific recommendations that corresponded to these main areas. These goals and related objectives and strategies may be found in Appendix C.

The Role of Community Colleges in Workforce Development

North Carolina Community Colleges are steeped in the tradition of the "open door" philosophy. W. Dallas Herring, who served as State Secretary of Education in 1963, believed in the " incomparable worth of all human beings"

Table 2. 5 Commission on Workforce Development Major Areas of Focus

Building A Highly Competitive Workforce		
Retooling the Existing Workforce and Supporting North Carolina Business and Industry	Preparing the Emerging Workforce	Building the System Infrastructure

Note: Adapted from North Carolina Commission on Workforce Development. (1999). Building a High Performance Workforce: 1995-97. Strategic Directions for North Carolina.

and that it is the responsibility of the state to develop the talents of every individual to the fullest extent possible (Wiggs, 1989, p.13). The committment and vision of the founders of the community college system in North Carolina gave rise to the open door philosophy that is at the heart of the community college's mission and is pervasive today throughout the colleges in North Carolina. This cornerstone policy of open admissions had three essential

elements: 1) testing and counseling, 2) broad-based curriculum, and 3) quality instruction (Wiggs, 1989). Historically, there have been great debates and discussions concerning the open door philosophy of the community colleges. The issue of quality has been primarily at the heart of these discussions. Baker (1992) and Deegan & Tillery (1985) described various missions of the community college as it has expanded during different time periods demonstrating how community needs have influenced the mission.

Historical Development of Community Colleges

The driving force in the establishment of the early public junior colleges were based on communities' inability to attract a university and wishing to have an avenue for higher education within their community (Cohen & Brawer, 1982). Additionally, social and economic reasons were strong drivers behind the local civic and business leaders and superintendents of public schools pushing for and supporting a local junior college (Pedersen, 1989). Unable to attract a university, some communities chose junior colleges as a last-ditch effort to acquire educational facilities for adults (Cohen & Brawer, 1982). Some junior colleges were developed to establish commercial and cultural leadership within agricultural regions, while others were established as a feeder institution to prepare students for the nearby university. Often, business and civic leaders provided the necessary resources to secure and support a junior/community college (Frye, 1992).

The contradictory influences upon the development of the community college stem from the influence of the secondary public schools and the universities (Frye, 1992; Pederson, 1989). Contradictions in terms of structure, governance, administration, mission, values, and purpose continue to be the origins of the conflict in today's community colleges. The early junior colleges were financed similarly to high schools, but described themselves in terms of higher education. The organizational structure of the public junior colleges were similar to the organizational structure of high schools; in fact, many were under the same governance authority as high schools (Pedersen, 1989).

Superintendents of public schools played an important role in securing junior colleges because they wanted to ensure higher education within the community for their graduating seniors, and they wanted to keep financial resources, that would be expended on a college education, within the community. Pedersen (1989) contended that a close association was born from this union, not as a planned event, but rather out of necessity over economic constraints. Public junior colleges depended on the public schools not only for governance and financial resources, but to provide the students for the junior colleges as well.

Frye (1992) agreed that the public junior colleges did not develop in isolation, but were influenced by high schools, universities, and the economic interests of the community and stated that "the relationship existed based on necessity and was not a strategically planned outgrowth as many historians may

agree" (p. 136). Frye further stated that the growth of public junior colleges was influnced by high schools and universities because they were dependent upon those entities for their support. Vaughan (1990), in his Pathways to the Presidency, supported this notion by stating, "early community colleges emerged as something of a hybrid, drawing heavily from the public high schools and from higher education" (p. 7).

In contrast to the influence of public schools on the governance structure of today's community colleges, the universities had a significant influence on the development and growth of the faculty for the colleges. The faculty at the junior colleges were more closely aligned with the faculty at the universities (Pederson, 1989). Unlike public schools, junior college faculty had a tremendous amount of flexibility and autonomy over curriculum concerns, and teaching workloads were more similar to those of the university environment. The universities' influence on faculty standards and prerequisities set the junior colleges apart from the public schools (Cohen & Brawer, 1982). Additionally, prior to the accreditation process, state universities were responsible for regulating junior colleges and for judging the quality of the college and the integrity of the degree-granting process and the transferability of courses. This standardization process gave the universities direct control and influence over the development of the junior/community colleges (Cohen & Brawer, 1982). In effect, by having this control, universities were creating mini-universities within small communities across America (Frye, 1992).

Herein lies the historical context for the conflicting values, missions, goals and objectives in today's community colleges. The historical influence and control of universities and public schools on the community colleges offer a framework for understanding today's conflicts.

As a result of missions and purposes that are sometimes contradictory, community colleges face critics and controversies at multi-levels. Critics contend that the open-door philosophy creates inequities that denotes a class system, that remediation is insufficient (Roueche & Roueche, 1998), and that few students enrolled in the college transfer program ever complete the baccalaureate program. Critics further argue that community colleges do little more than perpetuate the underclass in society and that minorities and women are tracked into low-wage jobs as a result of attending community colleges (Cohen & Brawer, 1982). Other critics contend that community colleges try to be all things to all people, which clouds the purpose and mission and further add to the confusion. Additionally some say that community colleges should limit their focus, while others say community colleges should become more comprehensive. Baker (1992) described the chaotic environment that community colleges face by contrasting the difference between the growth and stability of the founding fathers and the myriad of complexities facing college presidents today. Cohen & Brawer (1989) asked the following questions:

> If community colleges should choose to narrow their focus, just what does the mission and purpose become? Do community colleges become

> comprehensive community colleges, as most are today, or do they focus on vocational training and adult education, with little emphasis on the college transfer programs? (p. 212)

Defenders of the system expound that community colleges open the doors of access for many who otherwise could never obtain a college education, and they said that community colleges should continue to provide that access (Baker, 1992). Defenders of the system also said that the open-door access serves as a democratization agent, while critics challenged the open-door concept by referring to it as the revolving door (Deegan & Tillery, 1985; Cohen & Ignash, 1994). Jan Ignash (1993) in the Revolving Door Syndrome described the ease in which students move in and out of community colleges and refered to this movement as the "revolving door". Because of the flexibility of the open door philosophy, students can drop out and re-enroll at various stages over various periods of time. This flexibility gave rise to the critics' contention that the open door really is a revolving door and that community college entrants do not really ever complete their education. However, the defenders of the system might say that the revolving door syndrome suggested that the community colleges take people from where they are, at whatever level, and moves them forward (Herring, 1964).

The controversy that exists surrounding the community colleges is at the very heart and nature of the community college mission and purpose. Community colleges are a hybrid, evolving from high schools and universities,

and are shaped by the communities that sponsored them (Vaughan, 1990). Importing different values and beliefs from each system and adapting the local flavor of the sponsoring communities, community colleges have mixed missions and purposes (Baker, 1992). As a result, community colleges embrace a mixed bag of community needs. Community colleges can be viewed as the open door to higher education; a supplier of trained workers to local business and industry; a supplier of alternative educational avenues for those who need it; a savings for the taxpayer; an affordable alternative; and a community resource for community services (Baker, 1992; Frye, 1992; Cohen & Brawer, 1982).

Community colleges have tried to respond to all of the needs within the community and to the additional needs that have been imposed by legislative funding bodies. As a result, community colleges have contributed to the critics' messages by sending mixed signals of their own. As examples, community colleges have engaged in the following practices: Shifting funds from curriculum programs to other programs such as remedial education or occupational training (Baker, 1992), the wide spread practice of the hiring of part-time faculty (because it is cheaper to do so), placing little emphasize on student retention (Cohen & Brawer, 1982) (in times of funding crisis, student development initiatives are first to be cut), and the extremely low pay for faculty and other college administrators (Roueche & Roueche, 1996). These practices give new fuel to the critics' arguments and send further mixed messages about the purpose and mission of community colleges.

Even as early as 1976, Soloman (1976) argued that community colleges should work with employers to help facilitate access to the labor market. Roueche, Baker, Omahaboy, & Mullins (1987) suggested that North Carolina community colleges mirror a national trend in that they are uniquely situated to address community issues including workforce preparation and development. Cohen & Brawer (1982) cited increased diversity and community involvement as additional issues which increased the challenges placed upon the community colleges. Community colleges have many opportunities and challenges and strengths and weaknesses as they prepare to move into the twenty-first century (Zeiss, 1999).

One issue identified by several community college leaders and authors is the global nature of the economy and the changing workplace environment (Roueche & Roueche, 1989; Baker, 1992; Zeiss, 1999). Cohen & Brawer (1994) stated that "career education will remain prominent; there can be no reversing the perception that one of the colleges' prime functions is to train workers, and ample funds are available to support this notion" (p. 18). Steve Ovel (1999), in his article for the Community College Journal, The Skills 2000 Challenge: High Stakes, High Skills, stated that:

> ... the same intense emphasis that was placed on economic development in the 1980s has now shifted to workforce development and that success can only be measured by those areas that develop new working relationships and put new workforce delivery systems into place. (p. 13)

Ovel (1999) also acknowledged that these new systems lead to the front door of the community colleges across the nation. The flexibility that community colleges have is one of the greatest strengths in preparing the colleges for the onset of the new century and the new demands that the colleges will face.

Another important issue that impacted the future of community colleges is the increased competition that technology brings to the forefront (Roeuche & Roueche, 1998). Technology is affecting both the work we do and how we do it, and individuals need to know how to use the technology that is available (Zeiss, 1999). The onset of new training providers who can respond in a timely manner, and the rapid growth of new proprietary schools bring a new set of dimensions and challenges to the community colleges. Tony Zeiss (1998), president of Central Piedmont Community College in Charlotte, North Carolina, raised the issue that degrees no longer guarantee a sure route to a good job and that employers value skills more than education. He called for those in leadership who can affect dynamic changes to do so quickly and to recognize "that market sensitivity must become a core value along with quality instruction and student learning" (p. 11).

Individual access to the Internet and the availability of distance learning offer a new environment for competitors to thrive (Roueche & Roueche, 1998). Increased student needs and expectations, technological advancements, less public funding, increased accountability (Roueche & Roueche, 1989) and increased employer demands for skilled workers (Zeiss, 1998) all contribute to

the competitive environment. Change is the new buzzword in this environment. Organizations that can respond to change quickly and effectively, will gain the competitive edge (Baker, 1992; Chakrapani, 1998).

In North Carolina, community colleges will probably remain the major provider of training services to employers and the general public because of the many college locations and the affordability of the colleges' offerings (Zeiss, 1999). Equally important, colleges have the expertise to tailor services for nontraditional students and for other special populations. To remain the major provider of training services, colleges will need to look at developing new approaches based on the work-first strategies (Mangum, Mangum, Sum, Callahan, & Fogg, 1999). According to Mangum, et al. (1999) the work-first perspective is based on the conviction that any job is better than no job and that the best way to succeed in the labor market is to join in and to develop work habits and skills on the job rather than in a classroom setting. Of significant importance, colleges should look at revitalizing initiatives concerning training in the workplace and the provision of labor market information so that students are being trained in areas for which there are jobs (Zeiss, 1999). This statement supported the structure of the new One-Stop delivery mechanism authorized under the Workforce Investment Act.

Additionally, customer choice, customer satisfaction and customer convenience are important in this highly technological society today and are dimensions important to the community college students as well. Zeiss (1998)

quotes Terry O'Banion, former president of the League for Innovation in the Community College, who recommends a two-step process for transforming community colleges to meet the demands of the new century: "(1) place learning first, and (2) change the traditional architecture of our colleges" (p. 11). This transformation requires that community colleges must be deregulated and that bureaucracy at all levels must be reduced. The advantages of community colleges engaging in a competitive environment are twofold. First, competition drives competition (Zeiss, 1997; Deegan & O'Banion, 1998; Roueche & Roueche, 1998). The customers' needs are put first and foremost. Second, competition forces institutions to examine current practices and to revise or develop new ways of doing things (Zeiss, 1997). The development of continuous process improvement strategies is a good practice for community colleges to engage in. As community colleges go through this important transformation, one based on the free enterprise system of competition, those colleges that can manage to accomplish the tasks laid forth will indeed gain the competitive advantage and the competitive edge (Zeiss, 1997).

Roueche & Roueche (1998) further substantiate O'Banion's comments by stating the following:

> Ready or not, community colleges are now players in a highly competive, market driven economy where they must identify their niche; analyze their competitors' strengths; remain viable by offering the best services in the most economic, efficient, and convenient manner; and expand and

> strengthen bases of economic and constituent support for future growth and development. (p. 32)

Colleges continue to face new challenges from forces external and internal to their organizations. In addition to the lack of funding and increased accountability challenges (Roueche & Roueche, 1998), colleges face the most recent challenge that centers around community college involvement and participation in the federally funded Workforce Investment Act of 1998 (U. S. Department of Labor, 1998a). Roueche & Roueche (1998) state above that "community colleges must identify their niche" (p. 32). One way in which community colleges can accomplish this is by actively embracing the federal Workforce Investment Act of 1998 and become involved with the new One-Stop delivery structure set forth in the Act.

Although some critics are concerned with the level of importance that community colleges place on preparing trained workers and think that colleges should not be involved at all, (Cohen & Brawer, 1982), Zeiss (1997) would argue that community colleges should be totally immersed in preparing workers and in career development.

Community College Student Development

Student development functions and services implement the comprehensive goal of student development as an educational and learning process designed to ensure academic success and the personal development of all students (Deegan & O'Banion, 1989). An institution's student development

services division shares the critical task of facilitating or directly bringing resources of the institution to bear on the educationally-related needs of the students (Task Force on Student Services, 1980). It is important to note that student development services provide or assist in providing the functions and services college-wide through a shared commitment to the success of students (Cohen & Brawer, 1989). It is through a philosophy of partnerships and collaboration that a community college can facilitate the achievement of its students' aspirations and goals.

Student development services help provide for five basic institutional functions:

1. Preparation for academic success
2. Academic support services for enrolled students
3. Enrollment management
4. Administrative services
5. Transition to work and further education

Student Development Services

Student Development Services (student services or student affairs) is typically defined and administered as an organizational component within most community colleges. In the broad context of the institution's mission or purpose, student development services exist to ensure the success of the mission. Komives & Woodward (1996) stated that student affairs was originally founded to "support the academic mission of the college, and one of the characteristic

strengths of American higher education is the diversity among the missions of these institutions" (p. 23).

Komives & Woodward (1996) also described American higher education as: (1) the provision of opportunities for the intellectual, aesthetic, ethical, and skill development of individual students and the provision of campus environments which can constructively assist students in their more general development; (2) the advancement of human capability in society at large; (3) the enlargement of educational justice for the post-secondary age group; (4) the transmission and advancement of learning and wisdom; and (5) the critical evaluation of society -- through individual thought and persuasion -- for the sake of society's self-renewal (Komives & Woodward, 1996; Task Force on Student Services, 1980). A review of North Carolina's General Statutes 115.A and 115.D (North Carolina State Government, 1997) and the various mission statements of North Carolina's community colleges suggest that there is a state-level commitment to these broad educational purposes as well.

Student Development Education

Student development education in its basic form is education that focuses on all facets of the student, both cognitive and affective in nature. Students are recognized as unique and should be treated and served based on his or her unique needs (Komives & Woodward, 1996). The total college environment is educational in nature and is organized to promote development to its fullest. Student development education as a process recognizes that major responsibilty

for a student's individual development resides with the student and his or her personal resources (Deegan & O'Banion, 1989).

The outcomes measure of student development education is considered to be behavioral change in the student (Komives & Woodward, 1996). The formal and informal learning processes provide for this change. The student's success depends upon collaboration between the student and the institution toward a determination of what is to be learned or achieved and how to achieve it (Blimling & Whitt, 1999). The American educational system was founded on the principle of student learning and character development (Komives & Woodward, 1996; Blimling & Whitt, 1999). The change occurs through various learning strategies within the college environment. These strategies include instruction, consultation (advice, modeling, counseling, support, etc.), managing the student environment to promote change, and evaluation to determine if goals (intended change) are being met (Deegan & O'Banion, 1998). If the concept of development through change is to use change strategies, then it is apparent that the work of instructors, counselors, administrators, and support staff are much alike in purpose (Komives & Woodward, 1996; Blimling & Whitt, 1999).

Student development services in today's community college perform a vital role in meeting the challenges associated with the development of students (Deegan & O'Banion, 1989). As mentioned earlier, there are many challenges facing community colleges today; some are new, and others have been historically a part of the community college movement. A sampling of these

areas included: increasing enrollment of part-time, evening and adult students, access to and success within higher education for minorities and other special populations (Deegan & O'Banion, 1998), economic development potential through programs that prepare educated, trained, and well-adjusted workers, (Zeiss, 1997) improving literacy rates in the population, providing opportunities for dropouts and reverse transfers from four-year colleges (Blimling & Whitt, 1999), and marketing of the community college mission with renewed enthusiasm and commitment (Komives & Woodward, 1996; Blimling & Whitt, 1999; Deegan & O'Banion, 1989). Student development professionals, working in partnership with faculty and with other college personnel, help to ensure that student success in a broad sense is possible through strategies that develop knowledge, skills, attitudes, self-determination, and the ability to control one's environment (Blimling & Whitt, 1999).

The challenge for the community colleges of the future is to find ways to meet funding priorities so that the increased quality and level of service to North Carolina's citizens envisioned through these priorities can become a reality. One way for student development professionals to think about meeting these challenges are through the colleges' participation in One-Stop Career Centers.

Appendix D, (Comparison Chart of Student Development Activities to JobLink Career Center Activities) compared the functions of student services to the functions that occur within JobLink Career Centers. The integration and application of this model could be easily applied to student services divisions

within community colleges. Appendix D illustrated the duplicity of each system and correlated the activities that occurred within each system. As the chart reflected, the services provided independently by each delivery structure were primarily the same services. Community colleges can easily adapt these services into the on-going offerings of the student development divisions and revitalize the dimensions of student development services. This combination of activities also gives the student development divisions a greater community role. This re-structuring would allow for the colleges to provide a holistic approach to student services, which would be keeping with the overall mission and objectives of student development.

In summary, community colleges are about education for student (human) development, and as such, student development divisions are ideal locations to establish JobLink Career Centers as a comprehensive centralized system for workforce development as described under the Workforce Investment Act of 1998.

A Review of the Workforce Investment Act of 1998

Overview

The Workforce Investment Act (WIA) of 1998 provided the basic framework for a state-driven workforce preparation and employment system designed to meet both the needs of business and industry and the needs of job seekers, training seekers, and those who want to further their careers. Following is a summary of the key tenets of this legislation: (1) training and employment

programs are designed and managed at the local level where the needs of businesses and individuals are best understood; (2) customers will be able to conveniently access the employment, education, training, and information services they need at a single location in their neighborhoods; (3) customers will have choices in deciding the training program that best fits their needs and the organizations that will provide that service; (4) customers have a right to information about how well training providers succeed in preparing people for jobs; and (5) businesses will provide information and leadership, and play an active role in ensuring that the system prepares people for current and future jobs (U. S. Department of Labor, 1998a).

The WIA legislation made changes to current funding streams, target populations, delivery systems, accountability measures, short- and long-term planning initiatives, labor market information delivery, and governance structures. Local and state workforce development boards were established. Governors designated local workforce investment areas and provided oversight to the designation of the local workforce boards. Customers benefited from the One-Stop delivery system with easily accessible Career Centers, where they could access quality labor market information in order to make informed choices concerning their careers or to access information about training (U. S. Department of Labor, 1998a). The WIA required that standards for success be established for organizations that provided training and outlined a system for determining their eligibility to receive funds (U. S. Department of Labor, 1998a).

This legislation had a significant impact on the community colleges as training providers, in that the colleges had to provide an accountability system for those students served utilizing resources under the Workforce Investment Act (U. S. Department of Labor, 1998a).

Key Features

North Carolina has adopted the four guiding principles for the national One-Stop career center initiative: (1) Universal Service: JobLink Career Centers are designed to provide access to training and placement assistance to any individual or employer in need of service; (2) Customer Choice: Customers have choices about how they access services; (3) Integrated Service Delivery: Customers are offered a comprehensive menu of training and employment services; and (4) Customer Driven and Accountable: JobLink Career Center staff will gather customer satisfaction information and use this feedback to improve service delivery (North Carolina Department of Commerce, 1999c).

One-Stop Environment

This system, based on the One-Stop concept, is one in which individuals can access a wide array of job training, education, assessment, and employment services in one location. In North Carolina, this One-Stop System was called JobLink Career Centers (North Carolina Department of Commerce, 1999c). As listed in Table 2.6, the Act specified that three levels of services were to be made available at One-Stop Career Centers: core services, intensive services, and

training services (U. S. Department of Labor, 1998a). Through JobLink Career Centers, customers were able to easily (1) receive preliminary assessment of

Table 2. 6 Matrix of Services Available in a One-Stop Center

Core Services	Intensive Services	Training Services
Eligibility determination	Comprehensive assessments	Occupational skills
Outreach, recruitment	Individual employment plans	On-the-job training
Initial assessment	Group counseling	Combined workplace/ classroom training
Job search and placement	Individual counseling	Private sector training
Labor market Information	Case management	Skill upgrading and retraining
Performance and cost information on training providers	Short-term pre-vocational services	Entrepreneurial training
Information on available supportive services		Job-readiness training
Information on filing unemployment insurance claims		Adult education and literacy
Follow-up services for twelve months		Customized training by employers

Note: Adapted from U. S. Department of Labor (1998a). The Workforce Investment Act of 1998, Public Law 105-220.

their skill levels; (2) obtain information on a full array of employment related services; (3) obtain job search and job placement assistance; (4) receive career counseling; (5) access up-to-date labor market information; and (6) evaluate eligibility for job training and education programs and student financial aid.

In addition to customers having a single access point in their local communities, employers will also have a single point of contact to provide information about current and future skills needed by workers and/or to list job openings. Customers and employers both will benefit from a single system in which to find jobs or to find skilled workers (North Carolina Department of Commerce, 1999c).

Customer Focused System

The next important aspect of the Act was a focus on meeting the customers' needs, including both the businesses looking for skilled workers, and the training, education, assessment, and employment needs of individuals accessing the system. New requirements of the legislation allowed for customers to access the information and services they needed through the One-Stop system, to empower adults to obtain training through Individual Training Accounts (ITAs), and to ensure that the programs meet the needs of the customers through an assessment of customer satisfaction (U. S. Department of Labor, 1998a).

One of the goals of One-Stop was to focus on customer service and to minimize duplicative efforts in the workforce development agencies. By the year 2004 or before, customers entering North Carolina's JobLink Career Centers will

not see any distinctions of agencies or programs, but rather a single understandable process with skilled, well-trained staff with knowledge and expertise to support customers in making decisions that may involve multiple funding sources; and a single and understandable initial basic application for all customers with a possible expanded application for those people needing extensive services (North Carolina Commission on Workforce Development, 1999). While many customers may not need in-depth case management or career planning assistance, for those who do, the services will be provided without regard to which agency fund source is supporting the center. As required in the Workforce Investment Act (U. S. Department of Labor, 1998a) and in coordination with local Workforce Development Boards, the State prepared an extensive list of training providers and performance data that will enable workforce customers to choose the most appropriate and effective training provider to deliver training.

Customer Empowerment

Another key provision of the Workforce Investment Act called for individual responsibility and personal decision making through the use of Individual Training Accounts (ITAs) which allowed customers to make informed decisions concerning their training (U. S. Department of Labor, 1998a). This market-driven system allows for customers to purchase training, based on individual assessments, and the credentials needed to succeed in the local labor market. Quality customer choice requires quality information being available at

One-Stop centers in order to help facilitate the access of information to customers. This includes the availability of performance information on the training providers, performance measures relating to placements into unsubsidized employment, placement earnings, attainment of education or skill standards, and measures relating to customer satisfaction (U. S. Department of Labor, 1998a). All of these contributed to quality information available to the customers in order to make good informed choices concerning their future. Figure 2.1 graphically illustrates the model of service delivery through the JobLink Career Centers in North Carolina. JobLink Career Centers are judged against performance measures including customer satisfaction measures, in order to determine their ability to meet the customers needs. Likewise, training providers such as community colleges must meet certain program performance outcome measures in order to receive WIA resources. Training providers were held accountable for program completion rates; the percentage of customers who obtain unsubsidized jobs; and their wages at placement (U. S. Department of Labor, 1998a).

North Carolina's Model for JobLink Career Centers

North Carolina's JobLink (One-Stop) Career Center system vision is as follows:

> To improve North Carolina's workforce and strengthen our state's economy by developing a system of JobLink Career Centers that offers labor market information, provides access to career training and job

placement services, and serves as the connection between the employers and qualified workers (North Carolina Department of Commerce, 1999a, p.7).

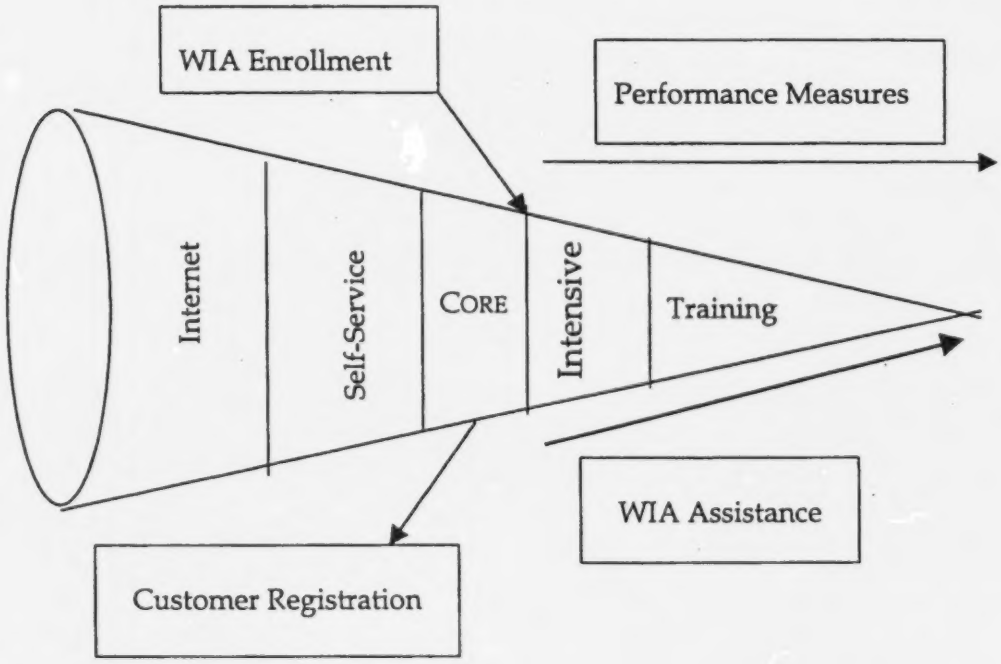

Figure 2.1. JobLink Career Center Service Delivery Model. JobLink Career Center tiered service delivery model. This model illustrates the tiers of service levels in WIA; beginning with access to the internet, self-services, core services, intensive services, and training services. WIA services and performance measures begin at the point of intensive services.

Central to accomplishing this vision is the empowerment of local workforce development boards to determine and respond to local needs. North

Carolina, in establishing its JobLink Career Center system, viewed continuous improvement as a method for achieving high customer satisfaction while meeting changing customer needs (North Carolina Department of Commerce, 1999c). Figure 2.1 illustrated the levels of service delivery available to customers of the JobLink Career Centers. This model identified that customer registration occurs during the core services process, the point at which a customer is enrolled for WIA services occurs during intensive services, and WIA performance measures begin at the point of intensive services and goes through the training and placement services.

This new system and design of JobLink Career Centers viewed continuous improvement as a way of life, not merely as a buzzword for today (North Carolina Department of Commerce, 1999c). The vision was to improve North Carolina's workforce and to strengthen the state's economy by developing a system of JobLink Career Centers that offers labor market information, provides access to career training and job placement services, and serves as the connection between employers and qualified workers (North Carolina Department of Commerce, 1999c). Currently in North Carolina, there are at least one center in each of the twenty-five local workforce development areas. Appendix E contains a map of the JobLink Career Centers in the state. It is envisioned that in five years, North Carolina's JobLink Career Centers will be the principal points of entry to the workforce development system (North Carolina Department of Commerce, 1999c).

North Carolina's approach was to create a true One-Stop delivery system and not just another stop. To accomplish this vision, the Commission on Workforce Development continued to work with the Governor and State agency officials to maximize the funding of the JobLink Career Center system (North Carolina Department of Commerce, 1999b). All the partner agency programs were listed in Table 2.7. The parent agencies for each of these programs and services participated in the development and implementation of North Carolina JobLink Career Center system.

North Carolina's partner agencies and programs in its JobLink Career Center system included: the Job Training Partnership Act system (replaced by the WIA Title I system), Welfare-to-Work, the public employment service (Wagner-Peyser, NAFTA and TAA, Unemployment Insurance, Veterans, and Migrant and Seasonal Farmworkers programs), JobReady (School-to-Work), community colleges, vocational rehabilitation, and the Department of Social Services including: Temporary Assistance for Needy Families (TANF) and Food Stamp programs (U. S. Department of Labor, 1998a). Each partner agency must provide its core services through the JobLink Career Centers. A matrix of the workforce development programs by partner agency is located in Appendix F. Appendix G contained a list of JobLink Career Centers partner agencies and the programs they brought to the JobLink Career Center.

Continuous Improvement

To ensure that JobLink Career Centers operated as very high-quality service operations and to provide statewide continuity for a structure, the state used, and required the local Workforce Development Boards (WDB) to use, one

Table 2. 7 Mandatory Partners in a One-Stop Career Center

Mandatory Partners In WIA One-Stops
Programs Under Title I (WIP)
Community Services Block Grant
Housing and Urban Development
Unemployment Compensation
Veterans Employment Services
Post-Secondary Vocational Education
Employment Service
Adult Education and Literacy
Vocational Rehabilitation
Welfare-To-Work
Community Service For Older Americans

Note: Adapted from U. S. Department of Labor (1998a). The Workforce Investment Act of 1998, Public Law 105-220.

of the most compelling private sector quality frameworks: the Malcolm Baldrige National Quality Award Criteria (Baldrige Award Criteria, 1993).

The basic premise of the Baldrige Award Criteria is that successful organizations operate with the systems, structures, and strategies to achieve three things: 1) superior performance; 2) continuous improvement; and 3) highly satisfied customers (Jankowski, 1997). As each local area opens JobLink Career Centers, the WDB developed a chartering agreement with the agencies who were preparing to operate or provide services through a local JobLink Career Center. The primary purpose of the charter was to establish that centers are capable of meeting or exceeding quality standards that were set by the local WDB. In essence, granting the charter certified the readiness of the center to deliver high quality services to its customers. The state's model for chartering placed the responsibility for setting performance measures and standards at the local level, with the Workforce Development Board (WDB) (North Carolina Department of Commerce, 1999a). The more established centers refined and revised their service delivery to better meet customer needs based on the elements used in the chartering process. The Baldrige Award Criteria included seven major categories and twenty-four items within them. As Table 2.8 illustrated, the seven broad categories are leadership, information and analysis, strategic planning, human resource development and management, process management, business results, and customer focus and satisfaction. For each of the seven categories, the state established a vision statement and local Workforce Development Boards were

expected to define specific criteria and measurements that were consistent with that vision and responsive to local priorities (North Carolina Department of Commerce, 1999a).

Table 2. 8 Chartering Criteria for One-Stop Career Centers

Baldridge Chartering Criteria
Leadership
Information and Analysis
Strategic Planning
Human Resource Development And Management
Process Management
Performance Results (Business Results)
Customer, Stakeholder And Market Focus

Note: Adapted from Baldrige Awards Criteria. (1993). Malcolm Baldrige National Quality Award.

Benefits of the One-Stop System

JobLink Career Centers provided job seekers a single place to address their employment and training needs. Local workforce development professionals from various partner agencies worked together to provide the best service for all customers. JobLink Career Centers offered a more convenient,

efficient, and effective way for all North Carolinians to look for a new or better job or to find out about training opportunities (North Carolina Department of Commerce, 1999b). JobLink Career Centers offered businesses the opportunity to recruit applicants who had been assessed and who met the employers' needs. Centers provided employers information about the labor market, workforce, and hiring incentives. JobLink Career Centers tailored services to meet employers' hiring and training requirements for new employees and provided assistance for new and expanding businesses. Also, if an employer was downsizing its workforce, JobLink Career Centers offer the employer assistance with unemployment insurance, training, and placement services for employees (North Carolina Department of Commerce, 1999a). The results are well-trained North Carolinians working in productive jobs and creating a strong state and local economy (North Carolina Department of Commerce, 1999a).

A System for Obtaining and Integrating Employment Information

The Workforce Investment Act specified that three levels of services were to be made available at One-Stop Career Centers (U. S. Department of Labor, 1998a). These three levels of services - core, intensive and training - are described in Table 2.6. In addition to the tiered services identified in Table 2.6, Hoyt & Lester (1995) recommended that the creation of job clubs is a good way to engage unemployed individuals. Individuals are more likely to succeed when thrust in an environment in which others are facing similar experiences. In addition to the individual self-esteem issues that unemployed individuals face

when looking for a job, the environment can also make a difference in the attitude of the individuals seeking services (Jones, 1990). A job search can be a frightening and defeating experience (Clifford, 1998). Repeated rejections by employers are hard to handle and undermine job-seekers' feelings of self-worth and self-confidence. In order to get a job, job-seekers must be able to present themselves to an employer with confidence in their abilities. Recognizing poor self-esteem is the first step toward success in searching for a job (Clifford, 1998).

There are many elements that are necessary for a successful job search. First, the importance of self-confidence and feelings of worth cannot be stressed too much. A positive attitude and confidence can go far toward impressing the potential employer. Many individuals involved in a job search process wonder what they have to offer, especially in this rapidly changing age of technological advancement (Clifford, 1998). Some may need more education or training in order to qualify for a job. They may need to know more about setting goals and preparing for future successes. As for the practical aspects of the job search, such as applications, resumes, interviewing, and follow-up, many people lose out on jobs because they underestimate the value of these important first steps (Clifford, 1998).

The issues that adults face in their job search process are in many ways similar to those who enter the workforce directly from school (Hoppin, 1994). Adults needed information about themselves and the working environment, as well as effective career decision-making skills. It is when they make decisions

regarding careers that they are in need of guidance (Goodman & Hoppin, 1990). It is helpful to have assistance when gathering information on job requirements, working with emotional issues, building confidence, and evaluating risks. Finally, most adults making a career decision need a systematic way of obtaining pertinent information and a way to reflect upon and organize that information (Hoppin, 1994).

Knowing how to use good career and labor market information can be defined as synthesizing data consisting of words, graphs, pictures, and numbers relating to education and work (Hoppin, 1994). It also consists of personal/social, educational, and occupational information emphasizing individual characteristics, attributes, skills knowledge, interests, values and aptitudes. Many adults have completed their education without the opportunity to learn how to access and use career information and labor market information or even know where to go to get this information (Peterson & Reardon, 1991). Labor market information is data about workers, jobs, industries and employers, including employment, demographic, and economic data. These data not only contribute to individuals' career decisions, but also are used by policy makers in the development of public policies and programs (Clifford, 1998).

Pines & Callahan (1997) predicted that each one of us will have a number of jobs and careers during our adult lives. Given that level of change and movement within the workforce, there are and will continue to be a large percentage of adults who will need assistance in planning those changes.

Gallup surveys (Hoyt & Lester, 1995) conducted in 1989 and again in 1993 provided information about how the general adult public feels about the career decisions they made and the resources that were available to them as they made those decisions. Some of the beliefs expressed by the survey respondents were depicted in Table 2.9. In the first survey, it was found that despite the importance of a career, less than half (41percent) of the adult respondents felt they had made an informed career choice. The results contained data that strongly reinforce the widely recognized need for improved career decision making (Hoyt & Lester, 1995). The second survey, conducted in 1993, identified a number of gaps in career development services (Hoyt & Lester, 1995).

Knowing how to access, evaluate, and use information is necessary for all job seekers. The wealth of information may seem intimidating and the process for incorporating this information into career decisions may seem overwhelming to job seekers. Baker (1998) stated that "all people in one form or another seek satisfaction by being involved in the decisions that affect their lives" (p. 16). The experts in the field of job search describe "what is often missing when change is desired is a road map to reach the destination" (Goodman & Hoppin, 1990, p. 96). By studying persons who have achieved long- and short-term goals, psychologists have discovered that these individuals have two common

Table 2. 9 Career Development Gaps

Career Development Services Gaps
1. The career development needs of persons aged 18-25 are not being met.
2. There is a great and growing need for almost all persons leaving secondary school to secure some kind of post secondary education prior to entering the labor market.
3. A high priority needs to be placed on meeting the career development needs of persons who drop out of four year colleges/universities prior to receiving a degree.
4. While some progress has been made, the need to bring equity of career development opportunities to minority persons remains strong and must continue as a high priority.
5. There remains a need for the career development movement to continue placing a high priority on ensuring gender equity in career opportunities.
6. The need for greater employer involvement in career development continues to be sizable.
7. Special attention must be provided to those youth that either drop out of high school or seek to enter the labor market with only a high school education.

Note: Adapted from Hoyt, K. B., & Lester, J. N. (1995). Learning to Work: The NCDA Gallup Survey.

characteristics. First, they set goals for themselves and second, they write the goals down. In other words, they have plans of action, which serve as detailed road maps (Goodman & Hoppin, 1990).

According to Zunker (1990), particular issues of concern for adults in career transition are, they are generally unaware of potential occupations and lack direction; they have not kept pace with changing job technologies, procedures, and practices; many have a single career orientation and do not understand the benefits and problems that accompany a career change; and they are unfulfilled in their present career and are searching for challenge and meaning.

In addition to the clients' having a difficult time in accessing information, case managers in this workforce development system had an equally challenging time (Sampson, 1999). Knowing how to access, evaluate, and use information is necessary for all case managers. Not only do they need to be familiar with career information delivery systems and other information resources, they also need to adequately prepare the customers that come through this system for the information acquisition process and to be able to provide them with a method to evaluate and process the wealth of information that they have collected (Jones, 1990).

In summary, staff must be acclimated to the changes inherent in the JobLink Career Center concept, and realize that the concept represents a significantly different way of doing business. Said another way, JobLink Career

Centers are not just a conglomeration of people from different agencies doing the same things that they did in their individual agency offices (Janakowski, 1997). Community College JobLink Career Centers can provide a central focus for meeting the needs of the students and the communities they serve and that support them. Table 2.10 compared the traditional staff functions in most agencies to the new staff functions in a JobLink Career Center. A review of the table suggested that staff functions respond to customer needs instead of being

Table 2. 10 A Comparison of Traditional Staff Functions to JobLink Career Center Staff Functions

Traditional Agency Systems	Joblink Career Center
Jobs defined by function or title	Jobs defined by types of interactions
Duties translate into set of tasks	Customer interactions described by a set of skills
Staffing in office defined by what worker does	Staffing within office becomes more flexible
Staff roles limited to specific set of tasks	Staff responsibilities are broad and incorporate a variety of skills

defined by the job description. As more JobLink Career Centers adopt the new model for service delivery, more experience will be gained, allowing the

workforce development system to continue to pursue the doctrine of continuous process improvement (Sampson, 1999).

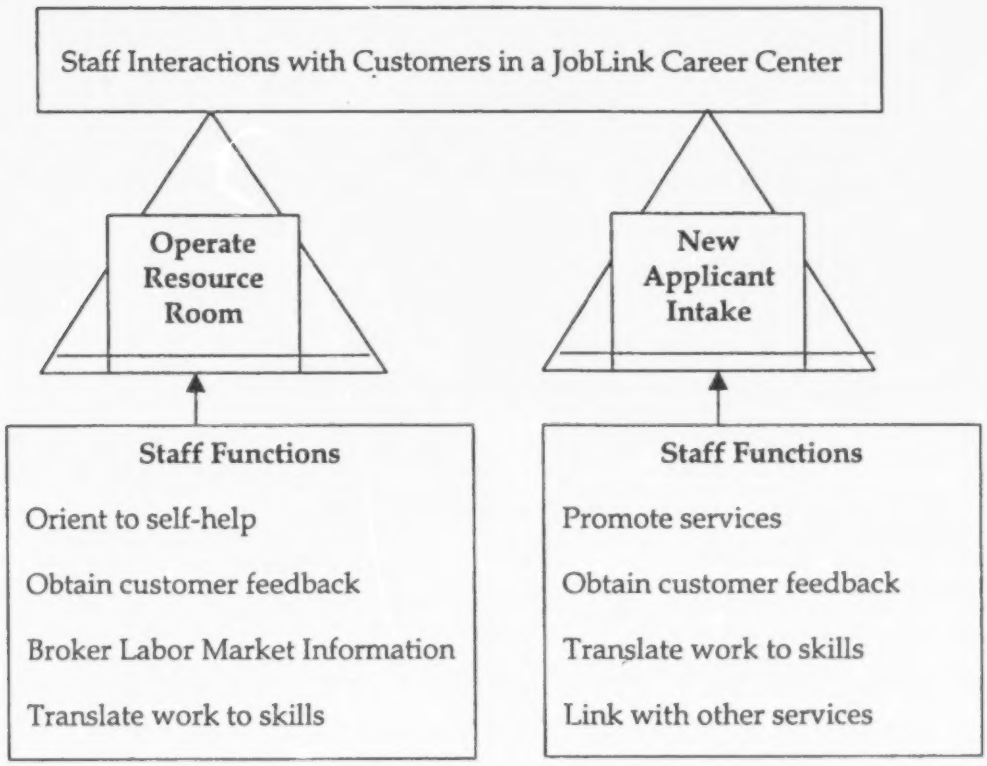

Figure 2. 2. Staff Interactions With Customers in a JobLink Career Center.

JobLink Career Centers on College Campuses: A Recruitment Tool for Colleges

Oftentimes, customers enter JobLink Career Centers without knowing exactly what they want the outcome to be. Student development professionals

have access to these individuals and can assist the customer with their career choices and with in-depth assessments. Figure 2.2 illustrated the primary relationships that student development professionals have with the customers of JobLink Career Centers. Similar to the community college primary philosophy of open-door institutions, JobLink Career Centers receive customers in a comparable format. Customers come to this open-door environment and make informed decisions appropriate to their needs, with assistance from case managers or counselors. Additionally, when JobLink Career Centers located on college campuses have incorporated student services into their centers, they are in a better position to provide a multitude of services to the customers. Community college student development divisions could play a crucial role in the JobLink Career Centers and should play a crucial role at the Centers that are not located on community college campuses. According to Deegan & O'Banion (1989), The Student Personnel Point of View served as the philosophical foundation for student services. That perspective focuses on the "whole person" rather than their individual training agenda alone. Similarly, by providing or having access to a multitude of services under one roof, Job Link Career Centers attempted to provide holistic services to individuals by addressing their needs in a comprehensive format.

Degan & O'Banion (1989) in Perspectives on Student Development, cited that a new model for student development be built on "recognition of the historic role of counseling and advising as both a means of education and a strategy to

help students achieve their goals" (p.39). This concept can be easily applied to community college JobLink Career Centers. JobLink Career Centers already have a tiered approach to services through core, intensive, and training services as depicted in Table 2.4. An additional strategy to facilitate the process could include a tiered approach to levels of services: self-service; limited assisted service; and in-depth service as shown earlier in Figure 2.1. In this model, student development professionals have the opportunity to concentrate resources on those customers/students that need assistance, thereby increasing customer choice. Not every customer needs the same level of counseling or assessment; some customers do not want to receive any counseling or advising services.

Additionally, a recent report prepared by MDC, Inc. of Chapel Hill, North Carolina revealed certain data that provided further rationale for this study (MDC, 2000b). These data elements indicated that community college-housed centers and diverse centers (centers that are housed at agencies or independent sites not belonging to a community college or to the local Employment Security Commission (ESC) office), generally had greater full-time, on-site participation by the principal partners than did ESC-housed centers. Table 2.11 identified the full-time partner agency participation rate for community college-housed JobLink Career Centers.

Table 2. 11 illustrated that at 100 percent of the community college sites, the community college partners and WIA partners had full-time participation,

while 63 percent had full-time Department of Social Services (DSS) participation and 37 percent had full-time ESC participation. Vocational Rehabilitation and the Job Ready (K-12) had only 12 percent agency participation in the JobLink Career Centers hosted by community colleges. In addition, the data revealed that community colleges were very limited partners at ESC-housed centers, while ESC was a very limited partner at community college-housed centers. This

Table 2. 11 Community College-housed JobLink Career Center Partner Agency Staff Participation Rates

Partner Agency	Full-time staff (Percentage)	Part-time staff (Percentage)
Community college	100	0
ESC	37	63
WIA	100	0
DSS	63	37
VR	12	88
K-12 (Job Ready)	12	88

Note. Adapted from MDC, Inc. (2000b). Center Partner Roles and Activities.

seems to point to a lack of cooperation between agencies as a potential hindrance to the development of One-Stop centers in North Carolina and in the delivery of quality services within those centers (MDC, 200b).

Table 2. 12 illustrated that the ESC sites provided an opposite scenario, as 92 percent of the sites had full-time ESC participation, but only 46 percent had

Table 2. 12 Employment Security Commission-housed JobLink Career Center Partner Agency Staff Participation Rates

Partner Agency	Full-time staff (Percentage)	Part-time staff (Percentage)
Community college	15	69
ESC	92	8
WIA	46	8
DSS	15	78
VR	8	85
K-12 (Job Ready)	0	31
Community college	15	69
ESC	92	8
WIA	46	8
DSS	15	78
VR	8	85
K-12 (Job Ready)	0	31

Note. Adapted from MDC, Inc. (2000b). Center Partner Roles and Activities.

full-time WIA participation, only 15 percent have full-time community college participation, and only 15 percent have full-time DSS participation. Vocational Rehabilitation had 8 percent full-time participation while the Job Ready (K-12), had zero percent full-time particpation. Judging from these figures, it seems that both ESC and community colleges were reluctant to participate if the center is not housed in their building (MDC, 2000b).

Table 2. 13 illustrated that the diverse centers have more evenly distributed percentages. Sixty-seven percent of the sites had full-time community college participation, 50 percent had full-time ESC participation, 83 percent had full-time WIA participation, and 100 percent had full-time DSS participation. The implication again is that a lack of cooperation between partner agencies seemed to be a problem facing One-Stop centers in North Carolina. Community college and ESC partners seemed particularly reluctant to participate fully if the center was housed at a site other than their own (MDC, 2000b).

While these data presented partner agency participation problems, it would be important to evaluate the customers' perceptions and to determine if the quality of services is greater when a strong community college presence is in the center. MDC, Inc. (2000b) states in their report, "Therefore, the underlying thought is that customers have a higher satisfaction with services received from community colleges' JobLink Career Centers compared to local JobLink Career Centers housed at local ESC offices" (p. 7).

Table 2. 13 Diverse-housed JobLink Career Center Partner Agency Participation Rates

Partner Agency	Full-time staff (Percentage)	Part-time staff (Percentage)
Community college	67	33
ESC	50	50
WIA	83	17
DSS	100	0
VR	0	100
K-12 (Job Ready)	0	33

Note. Adapted from MDC, Inc. (2000b). Center Partner Roles and Activities.

Summary of Literature Review

The literature was quite extensive in identifying and discussing what One-Stop Career Centers looked like and how the centers functioned, but little literature existed on continuous improvements in regards to customer satisfaction measures for the JobLink Career Centers. Perhaps this can be explained by the newness of this initiative and inadequate time to develop such a comprehensive system. The literature identified the necessary activities that take place in the JobLink Career Centers and set forth criteria for how the JobLink Career Centers used the chartering process. Additionally, a historical review of

how North Carolina implemented the Workforce Investment Act was presented as well as the Department of Commerce's Ecomonic Development Board's strategic plan and the Commission on Workforce Development's strategic plan and reports.

The lack of literature concerning customer satisfaction in a One-Stop environment in this review suggested that there was a need for a standard format to gather customer satisfaction ratings and the need to develop methodologies for applying universal standards to customer satisfaction measures. Though required by the Workforce Investment Act, a comprehensive ongoing statewide system of customer satisfaction measurement has yet to be put into place in North Carolina. Continuous improvement strategies and ways to incorporate customer feedback are other areas for which there was a need for further research and are explained in more detail in Chapter Five.

CHAPTER THREE: RESEARCH METHODOLOGY

Research Design

In Chapter One the researcher addressed the need for this study, and in Chapter Two, the researcher provided a reviewof the literature pertaining to the nature of the One-Stop environment, career decision making within that environment, workforce development policies in North Carolina, a review of the Workforce Investment Act, and efforts to date concerning customer satisfaction measures for JobLink Career Centers in North Carolina. In this Chapter , the researcher described this study's research method, the validity and reliability of the study, the sample selected to participate in the study, the data collection methods, and the data analysis approach used to analyze the data and to answer the study's research questions and hypotheses.

Research Method

Theory guides the research by arranging the research problem, research questions, and methodology (Merriam, 1998). Quantitative research attempts to discover something about a large group of people by studying a smaller group. Frankfort-Nachmias & Nachmias (1992), suggest that survey methodology is one of the most important data collection methods in the social sciences. They cited that because of the increased accountability pressures mounting on government, that surveys have become a cost effective and widely used tool in governmental organizations. This quantitative research methodology design employed a Likert-type format survey instrument to capture the data to be analyzed (Likert,

1939). Hayes (1992) suggested the use of a Likert-type format scale when measuring public attitudes. The advantage in using a Likert-type format survey is reflected in the variability of the scores which allow customers to express the degree of their opinion, rather than answering a "yes" or a "no" type question (Hayes, 1992).

As previously mentioned, a Customer Satisfaction Project Team, comprised of staff from the Governor's Commission on Workforce Development and the North Carolina Employment Security Commission (ESC), worked with a consultant from the University of Maryland to develop an appropriate customer satisfaction survey and execution methodology for North Carolina JobLink Career Centers (North Carolina Department of Commerce, 1999b). While the original methodology was not fully executed, data collected through this research will significantly reinforce the original notion of creating a system-wide strategy to manage customer satisfaction. The survey used in this study is the same survey that was originally created by the work team, and it is the same survey that the Employment Security Commission used to gather their customer satisfaction ratings. By using the same survey for the two targeted groups of respondents, comparisons can be made.

The survey document that was used for this research is divided into five sections and may be found as Appendix A. The survey is based on a Likert-type format scale model (Likert, 1939) in that respondents were able to select from among five categories of responses for each question. The responses for the

twenty questions range from excellent to not acceptable with a good, fair and poor response within the range. Each question also had a level of importance, where the customer can indicate how important a particular service is to them. The range for the importance questions are: very important, important, and not important. Table 3.1 identified the specific questions contained in the survey which are designed to gather information about the environment (facilities), staff responsiveness (reception), staff-assisted services, self services, and, as well as an evaluation of the overall services received. As Table 3.1 illustrated, a series of questions were posed under each section as follows:

Section A: **Facilities** - asked customers to respond to how the center looked; whether the center offered enough privacy; convenience of hours of operation; convenience of the center; and if services were easy to find and get in the building.

Section B: **Staff** - asked customers to respond to how quickly they were served at the center; how friendly the staff was to them; how respectful/polite the staff was; and how well the staff helped provide the information or services needed.

Section C: **Services** - asked customers to respond to how easy it was to get the services needed; how long it took to receive the services needed; how well the services provided met their needs; and how helpful the information provided was to them.

Table 3.1 Survey Questions

Facilities	Staff	Services	Self -Service Facilities
1. How the center looked	1. How quickly you were served	1. How easy it was to get the services you needed	1. How easy equipment and materials were to use
2. Whether the center offered enough privacy so to speak freely with the staff.	2. How friendly the staff was to you.	2. How long it took to receive the services you needed	2. How easy it was to get the information you needed
3. How convenient the center's hours were for you.	3. How respectful, polite the staff was to you	3. How well the services provided met your needs	3. How helpful the information was to you
4. How convenient the location of the center was for you	4. How well the staff helped provide the information or services you needed	4. How helpful the information provided was to you.	4. The length of time you waited to use the resources and/or materials
5. How easy it was to find and get to the services you needed in the building			

Section D: **Self-Service Facilities** – asked customers to respond to whether equipment and materials were easy to use; if information they needed

was easy to get; and the length of time they waited to use the resources and/or materials. If they required staff assistance while using the self-service facilities, were staff available to them, and were the staff knowledgeable of resources?

Section E: **Overall Rating of Service(s)** - asked customers to rate their overall experience with the services.

Section F: **Comments** - asked customers to record any additional comments regarding services. This section of the survey was reserved for any additional cutomers' comments about the services they received.

Validity and Reliability

In order for research to contribute to the knowledge base on a particular subject and to have practical application, it is important for researchers and others to have confidence in the rigor of the investigation and the results of the study (Merriam, 1998). The following three aspects are associated with research: (1) internal validity, (2) external validity, and (3) reliability.

Internal validity is the extent to which the research findings match reality (Merriam, 1998). Quantitave research attempts to draw generalizations to larger population groups by studying smaller groups. This goal is accomplished through surveys, questionnaires, and other means to access direct inquiry pertinent to the study. Construct validity involves relating a measuring instrument to a general theoretical framework in order to determine whether the instument is tied to the concepts and assumptions employed. External validity is a measure of the transferability of the data beyond the immediate study (Yin,

1994). Reliability refers to the absence of errors and biases in the study. Reliability also pertains to the fit between what is recorded as data and what actually occurs in the setting under investigation (Bogden & Biklen, 1998). Reliability also refers to the level of internal consistency of the measuring device over time (Borg & Gall, 1989). Gall, Borg & Gall (1996) suggested that researchers apply less rigid standards of reliabilty to questionnaires and surveys because they are collecting information that is structured and likely to be valid. The researcher was also interested in the average response of the total group rather than than the response of a single individual. Gall, Borg & Gall (1996) stated, "a lower level of item reliabilty is acceptable when the data are analyzed and reported at the group level than at the level of individual respondents" (p.291).

In order to maintain integrity and to protect the validity and reliabilty of the research methodology, this study replicated a study previously conducted by the Employment Security Commission utilizing JobLink Career Centers located at ESC offices through out the state. However, there were some differences in how the survey was administered which are identified and discussed in the Limitations section.

Additionally, in order to test the reliability of the survey, Cronbach's Alpha measure of reliability analysis were performed (Cronbach, 1951). The reliability indicator tests for the reliability of the survey. The computation of Cronbach's alpha is based on the number of items on the survey and the ratio of

the average inter-item covariance to the average item variance. Answers to a survey will differ because respondents have different opinions, not because the survey is confusing. In this study, the survey questions were grouped together which produced a five (5) item analysis. Table 3.2 showed the results of reliability tests performed, including Alpha and standardized item alpha.

Table 3. 2 Reliability Analysis for a Five Item Test

	ESC	Community Colleges
Alpha	.8554	.7815
Standardized item alpha	.8582	.7930

Significance of the Study

A number of colleges are interested in the results gathered through this customer satisfaction survey in order to re-design systems and services to better meet the customers' needs. Therefore, the central focus of this study was to conduct the survey, to examine the customer's point of view, to compare the results to the results from the previously administered survey by ESC, to analyze the data, and to provide feedback to the colleges that participated in the survey. The ten colleges selected to participate in this study were encouraged to implement continuous process improvement measures based on the survey findings.

For federal program year 1999 (July, 1999 – June, 2000) the federal government invested over 50 million dollars in North Carolina for the creation of JobLink Career Centers. The primary focus of the Workforce Investment Act was to provide a user-friendly facility where customers can access a wide range of services. This is a system that is based on customer empowerment and choice, a system that is designed for the customer; a system that is suppose to meet the needs of the customers. How well is North Carolina doing in meeting the needs of the customers at the JobLink Career Centers? This survey research was important in determining levels of customer satisfaction and in generating data that helped the state determine whether JobLink Career Centers are doing what the federal legislation intended for this new delivery system to do, by meeting the needs of the customers through the provision of consolidated services, quicker, easier, and more cost effectively, to the general public. Since future funding will be influenced by our ability to achieve higher customer satisfaction, as opposed to merely counting the number of people we serve or place in jobs, staff must be able to measure and document customer satisfaction and continuous process improvement strategies.

Both descriptive and inferential statistics were used to analyze the research questions and the corresponding hypotheses contained in this study. The null hypotheses were rejected at the $p < 0.05$ level of significance.

Limitations

The literature described that in a One-Stop environment there are two defined sets of customers: the job and/or training seeker and the employer; the literature further identified that customer satisfaction measures should be applied to both sets of customers. However, this research design was limited to the customer satisfaction rankings of the job and/or training seeker only, and not the employer customer satisfaction rankings. The researcher believed that the JobLink Career Centers have not developed the level of expertise, at this point in time, to be able to effectively deliver or offer any quality services to employers that can be measured through a survey. Therefore, the scope of this research study was limited to the job and/or training seeker as the customer base.

An additional limitation in the study included the actual survey data from the Employment Security Commission that was compared to the community college survey data. The Employment Security Commission's survey was mailed to respondents, compared to the surveys that were conducted for the community colleges which were completed and collected voluntarily on-site at the JobLink Career Centers. Frankfort-Nachmias & Nachmias (1992) identified several disadvantages in using a mail survey: no opportunity exists for probing or follow-up with the customer, there is not any control over who actually completes the survey, oftentimes there is a low response rate for mailed surveys, and finally, the bias that results from a low response rate may limit the ability to

draw generalizations to the larger population. For instance, mailed survey responses may yield a higher number of completely satisfied customers who will take the time to complete the survey or they may yield higher numbers of completely dissatisfied customers whom may have had problems with the services they received and used this opportunity to voice their dissatisfaction. In order to avoid some of the problems with mailed surveys, the community college survey was voluntarily administered, on-site, to all customers exiting community college-housed JobLink Career Centers.

Another limitation was the time period for which the data was collected. The time period for the data collection from the community college JobLink Career Centers was not a randomly determined time period, but determined by ease, convenience and availability. The Employment Security Commission data was collected at a single point in time, but included individuals that accessed the ESC JobLink Career Centers over several months in time. The data collection methodology for this study was limited to a one month time period. However, in reviewing the quarterly JobLink Career Center service level reports that were submitted to the Commission on Workforce Development, it did not appear that there were any significant increases or decreases in the numbers of customers that accessed the system at any given quarterly period, therefore selecting a particular month in time may not have a negative impact on the study (North Carolina Department of Commerce, 2001). Additionally, another limitation that must be mentioned was the time difference of the survey data collection from the

ESC and the community colleges. The ESC surveys were conducted in the months of November and December of 2000. Because of the various time delays in sending the survey instruments to the colleges, the community college surveys were administered and collected during the months of September and October of 2001. Since the survey questions focused primarily on staff capabilities, environment, and other resources that may have changed during the time period in question, the impact of the time difference on the aggregated results for the community college data are impossible to gauge. This area is raised as a limitiation because the deployment of JobLink Career Centers across the state, and the on-going training efforts may have significantly improved the delivery and quality of services during the eight month time delay between the two survey results.

Finally, while a relationship does exist between customer satisfaction and customer importance, (which denotes customer preference), (Hayes, 1992) this study focused on the customer satisfaction questions listed on the survey and left the customer importance questions for a future study.

Participant Sampling

Marshall & Rossman (1999) recommended that the researcher seek a close approximation to what can be described as an ideal site. The following considerations were used to determine the research site and sample: (1) entry to the site is accessible and possible, (2) a high probability exists to gather

completed survey documents, and (3) the researcher has reasonable assurances that quality data can be obtained.

The sites selected for this study were the JobLink Career Centers located on select community college campuses through out the state of North Carolina. There were thirty community colleges that hosted JobLink Career Centers on college campuses in the State. Based on the considerations identified by Marshall & Rossman (1999), ten community colleges were selected to participate in this study. Colleges were selected based of their willingness to participate in the data collection phase, their willingness to implement measures to correct potential problem areas that may arise from the data analysis, and their overall representativeness of the community colleges' thirty JobLink Career Centers on campuses.

This study utilized data collected through survey results from the ten selected colleges. Marshall & Rossman (1999) stated that it is also necessary to select a sample from which appropriate data may be obtained to answer the research questions and to inform the study. Use of the selective sampling technique in this study permited the selection of certain community college sites on the basis that entry to the site is possible, a high probability exists to gather the completed survey documents, and reasonable assurances exist that quality data can be obtained. Further, selected colleges had information pertinent to the study because they had knowledge of the existing phenomenon being studied.

Data Collection

Response rates strongly affect the basic assumption of randomness and the assumption that some generalizations can be drawn from the interpretation of the data (Mitchell & Jolley, 1988). Therefore, in an effort to increase the response rate, to avoid inaccuracies in the final data analyses, and to decrease the limitations by using a mailed survey, the most appropriate means of collecting data for this study was to request assistance from the ten selected colleges in administering the survey to all the customers exiting the JobLink Career Centers. Therefore, each college participating in gathering the survey results, were asked to give the survey to all customers as they exited the JobLink Career Center. Customers were asked voluntarily to complete the survey. Customers were read a letter by the JobLink Career Center staff indicating why the data are being collected, what the data will be used for, and how the data will be stored. Customers were also assured that their responses were confidential and that anonymity will be maintained. A copy of the letter to the selected colleges, requesting their assistance to participate in this study is located in Appendix H, and a copy of the statement that was read to the survey respondent (customer) is located in Appendix I.

The actual survey document is located in Attachment A. The questions in the survey (Table 3.1) are designed to gather customers' opinions about the services that they received from the JobLink Career Centers hosted by the two different agencies, as well as, opinions about the facilities. Table 3.1 identified

the questions contained in the survey which were designed to gather information about the environment (facilities), staff responsiveness (reception), staff-assisted services, and self services. The survey results were compared with the Employment Security Commission customer satisfaction survey results.

This study utilized data collected through survey responses from the ten participating community colleges during the months of July/August, 2001. It was anticipated that each college would submit an estimated 100-150 surveys. If insufficient data was collected during the identified time period, the time period was extended to ensure the time necessary to collect enough data to inform the study and to be able to draw generalizations about the population.

By having the selected colleges actually administer the survey instrument, the colleges were sending an important message to the customers they were surveying. That is, by designing the methodolgy this way reminds both the colleges and the customers that customer satisfaction is important to the JobLink Career Centers and that customers' opinions do count.

The data collected, through surveys by the ten local colleges participating in this research project, were forwarded to the researcher. The researcher entered the individual survey results into an Microsoft ACCESS database created by the Employment Security Commission. The data was securely stored until the completion of the time period allowed to collect the survey results. After the data was extrapolated from the surveys, the survey documents were destroyed. The survey results were aggregated and a comparison of the variance of mean

scores were made to the survey results collected by the Employment Security Commission. Data was extrapolated from the ESC files, and comparisons made concerning these data elements which produced meaningful conclusions aimed at addressing the research problem and suggesting areas for further research.

Additionally, colleges were asked to prepare and submit to the researcher a college profile that asked specific questions concerning their JobLink Career Center site. The Community College JobLink Profile is located in Appendix J. The profile asks the colleges the following questions:

1. Describe the Center location. Briefly describe how the center looks?
2. List the Center hours of operation.
3. Describe the resource room and the equipment and materials available to the customers. Does the resource center have a full-time staff person? If yes, is this person a community college person or a partner agency person?
4. How many staff are available to assist the customers?
5. How many computers are available to assist the customers?
6. How long does an average customer have to wait to be seen by the JobLink Career Center staff?
7. How are customers informed, upon their arrival, of services/resources, contact persons and referral information?
8. Are the self-service facilities clearly marked?
9. How does a customer know if they are receiving self-services?

10. How long does a customer wait to use the self-service facilities?
11. What tools has the JobLink Career Center developed to identify the services needed for job seekers?
12. Does the comprehensive center provide the federally required core services specified in section 134(d)(2) of the law? Please describe.
13. Please identify the Center's Partners and their on-site contributory status. Has the Center established a specific schedule of the times each on-site partner is to be available at the Center?
14. To what extent does each of the on-site partners meet or exceed its planned time on-site?

Data Analysis

There are a number of approaches that can be used to analyze customer satisfaction survey data. Each has it strengths and weaknesses, and each has varying degrees of suitability for different audiences. No one approach fully portrays the full range of anticipated customer responses. A portrayal of the information in several formats calls for a combination of approaches. Both descriptive and inferential statistics were used to analyze the research questions and the corresponding hypotheses contained in this study. The null hypotheses were rejected at the $p < 0.05$ level of significance.

Providing a basic description of the results can mean reporting averages, frequencies, percentages, or other descriptive numbers. Among the most common approaches is to create an average or a mean score. A mean or average

describes an entire set of numbers (Mitchell & Jolley, 1988). The strength in using an average is that it is easily calculated, and is easily understood; we talk of averages regularly (baseball batting averages, average speed, average hourly wage, average weight, etc.) and have an intuitive feel for their meaning. Averages provide a quick summary of all responses, serve as a basis for negotiated performance standards, and provide a convenient number to compare results to a standard or to other results (Chakrapani, 1998). The weakness is that an average can be misunderstood. Although we speak of averages constantly (e.g., the average American, the average customer), we may not be carefully following a strict definition of a calculated value. Using the term loosely can dilute its meaning and lead to confusion. The average score may not be at all related to the attitude of the average customer at all (Hayes, 1992).

There are also several ways to describe the data results as a pattern. Questions that have distinct categories (e.g., strongly agree, moderately agree, strongly disagree), like a Likert-type format scale used in this study, can be described by reporting the frequency with which each response category is chosen (Hayes, 1992). The simplest approach to displaying data are to look at frequencies. For example, if each question had ten possible responses ranging from 1 to 10, with 1 representing the least favorable response and 10 representing the most favorable response, then the responses can be reported as a table or in graphic form. The strength in using frequencies, percentages, and related graphs are that they are easily developed from any spreadsheet program such as

Microsoft ACCESS. The weaknesses are that interpreting the visual information from the questions without a numeric average of similar statistic can be challenging for a general audience, who must attempt to combine the frequencies in their heads.

Another way to intrepret the data are through a standard deviation. The standard deviation indicates how scores fluctuate on either side of the average score (Mitchell & Jolley, 1988). The strength in using a standard deviation is that it is easily calculated in Microsoft ACCESS and most spreadsheets. This one number provides some important information to complement the average.

Finally, response comparisons are another way to analyse the data. Customer satisfaction information can be grouped in several ways (Hayes, 1992). These include different program groups, different site groups, and different time periods (e.g., information gathered in May, June, and July). A comparison of customer group scores answers the question, "Are some categories of customers better served by the system than others?" This is the conceptual framework that guided the development of this study.

A strength in using response comparisons is that it provides a clear indication of the perception of service by different groups (Gall, Borg & Gall, 1996). The results of this comparison can be presented without using statistical jargon or a large amount of numbers so that it is easily understood. This comparison can highlight potential areas of concern in the way services are delivered to a specific group. A weakness noted in using response comparisons

is that some comparisons, although they might yield a statistically significant result, may not be appropriate in the first place. Two groups may be such different populations and differ to such a degree in the types of services received that a comparison of the two may not produce useful information (Mitchell & Jolley, 1988). Therefore, the nature of the comparison and the type of analysis must be clearly explained so that the audience understands the limitations of the comparison (Hayes, 1992). A comparison of customer satisfaction by customer groups is particularly useful for management and staff in identifying best practices.

Data Analysis Employed in this Study

In the first phase of the analysis, community college data were analyzed independently without comparisons to the Employment Security Commission's JobLink Career Center customer satisfaction survey results. 0The data were examined to look for any respondents that did not seem to match their subset. Several actual survey documents were reviewed and double checked verifying information. For instance, the researcher noted a high number of non-responses from a particular college in the race category. All the surveys submitted from that college were individually reviewed looking for any discrepancies that may have been keyed in error. This process was repeated for several areas of concern, until the researcher felt confident that all data was recorded correctly and in the case where data may have been keyed incorrectly, immediate steps were taken to correct any data keying errors. Individual and collective college survey data

were also reviewed for any outliers, data that looked suspicious or data that did not match their subset. The researcher determined that the data were free of any anomities that would effect the reporting of the findings. Next, the researcher examined distribution patterns of the respondents within the research populations and a frequency distribution table was prepared for each of the five research areas (Part A, B, C, D, and E). The data were then analyzed and comparisons made between the two host agencies and the basis for any differences were explored and examined. These analysis processes helped to capture independent sets of data pertinent to the discovery of information in which to inform the study. Mitchell & Jolley (1988) suggested looking at relationships among variables using tables of percentages to compare different groups' responses. The first step in the process was to summarize the data by constructing frequency distributions. The frequencies were converted to proportions by dividing the frequency category by the total number of responses in the distribution. A proportion becomes a percentage when multiplied by 100. The proportions reflect the relative weight of a specific category in the distribution. By using proportions or percentages, two or more frequency distributions can be compared.

The data from all survey questions were first tested to determine if there was a significant difference in satisfaction between the two means. To examine the degree of satisfaction within each of the research questions, each survey question was tested for significance with independent sample t-tests. The t-test

procedure compared the means for the two groups of cases. In this study, the subjects were assigned to two groups, based on where the subjects received their JobLink Career Center services - Employment Security Commission (ESC) or Community Colleges.

Mitchell & Jolley (1988) also suggested to use significance tests to determine whether differences between sample frequencies reflected differences in population by using the chi-square test. The chi-square test is designed to evaluate whether the difference between observed frequencies and expected frequencies is statistically significant. The chi-square test, as a nonparametric test of significance, is one whose model neither specifies the normality condition nor requires an interval level of measurement (Mitchell & Jolley, 1988). If the differences between the observed and the expected frequencies are so large as to occur rarely (only 5 percent or 1 percent of the time), the null hypothesis is rejected. The statistical formula used to evaluate the differences is the chi-square formula. The chi-square was calculated by subtracting the expected frequencies of each cell from the observed frequencies, square them, divide by the expected frequency of the cell and then sum the data for all cells. The larger the difference between what is observed and what would be expected if the hypotheses of no relation is true, the larger the value of the chi-square. Therefore, the null hypotheses were rejected at the $p < 0.05$ level of significance.

Separate calculations were prepared for each question in the survey. This analysis determined if a statistically significant difference existed between the

means of the two data sets, the community college data and the Employment Security Commission data.

The Statistical Packages for Social Sciences (SPSS, 2002) provides an operation to aggregate data into new variables. Data were aggregated into five sets based on the survey cluster questions for Facilities, Staff services, Services, Self service, and the Overall. These new variables matched the five research questions.

For the purpose of this study, response data were aggregated for each section or research question – Part A (Facilities), Part B (Staff Services), Part C (Services), Part D (Self Services), and Part E (Overall). For each question, the respondents had an option to select the following responses: Does Not Apply, Excellent, Good, Fair, Poor or Not Acceptable. The researcher assigned a 1 for Does Not Apply, a 2 for Excellent, a 3 for Good, a 4 for Fair, a 5 for Poor and a 6 for Not Acceptable. Responses with either missing data or "Does Not Apply" with a score of a "1" were excluded from any t-test or chi-square computations. The frequency count of response for each survey question with an Does Not Apply (1), Excellent (2), Good (3), Fair (4), Poor (5), or Not Acceptable (6) within the research question was multilied by the assigned weight . The sum of the product from weighted responses was divided by the sum of responses for the research question's mean. Table 3.3 listed an illustrative sample of this procedure utilizing the data from Part A, Facilities of the survey from the

Table 3. 3 Sample of Data Analysis Employed in this Study

CATEGORY	FREQUENCY COUNT	WEIGHT	CATEGORY PRODUCT
Excellent	649	2	1298
Good	306	3	918
Fair	11	4	44
Poor	0	5	0
Not Acceptable	0	6	0
Sum	966		2260
Mean	2260/966	=	2.339545

community college responses. This procedure was repeated for each of the five research areas.

Research Questions and Hypotheses

The over-arching conceptual framework that guided this study was to determine if there were any differences between the level of customer satisfaction of customers receiving services from a JobLink Career Center hosted by selected community colleges, as compared to customers receiving services from the Employment Security Commission hosted JobLink Career Centers. The survey document is located in Attachment A. Following are the specific research questions and the corresponding null hypotheses that were tested in this study:

Research Question One: Are there any significant differences in the

facilities between the two data sets?

H_0^1: There are no significant differences in customer satisfaction rankings for facilities between the community college JobLink Career Centers and the ESC JobLink Career Centers.

The survey contained five separate questions in Part A, Facilities. Survey respondents were asked to rank each of the five questions. In general, the survey asked the following questions - asked customers to respond to how the center looked (QA1-R); whether the center offered enough privacy (QA2-R); convenience of hours of operation (QA3-R); convenience of the center (QA4-R); and if services were easy to find and get in the building (QA5-R). The data from all five survey questions in Part A, Facilities from both the community college respondents and the ESC respondents were aggregated. In Chapter Four tables illustrated the descriptive statistics associated with the research question and a comprehensive review of the data examined the frequency distributions of the data and also showed the comparisons between the data sets listing the count, and the valid percent within the two locations, ESC and community colleges. Frequency distributions for the total responses for questions QA1-R—QA5-R of the survey questions contained in Part A including the numbers for Missing Data were also listed.

The data from all five survey questions in Part A, Facilities (QA1-R - QA5-R) were first tested to determine if there was a significant difference in

satisfaction between the two means. To examine the degree of satisfaction within each of the five research questions, each survey question was tested for significance with independent sample t-tests. The independent sample t-test procedure compared the means for the two groups of cases. In this study, the subjects were assigned to two groups, based on where the subjects received their JobLink Career Center services - Employment Security Commission (ESC) or Community Colleges. The output of the t- test provides the test statistic, the degrees of freedom (*df*), the standard error and a two-sided p-value. The large sample t-test does not does not assume equal variances, therefore the value of the test statistic and the standard error are shown in the unequal variances row of the data output as part of the Tables shown in Chapter Four.

An explanation is required in order to understand the coding responses and how the mean numbers were computed. In the statistical package used to analyze this data (SPSS, 2002) numbers were assigned for the various coding categories. The researcher assigned a 1 for Does Not Apply, a 2 for Excellent, a 3 for Good, a 4 for Fair, a 5 for Poor and a 6 for Not Acceptable. Responses with either missing data or "Does Not Apply" with a score of a "1" were excluded from any computations. The t-test result statistics for a two sample test for Part A of the survey questions (QA1-R - QA5-R) revealed that for unequal variances the t-test showed $t = 17.270$ with 4697 degrees of freedom (*df*), and has an associated

probability (sig.{2-tailed}) of $p < 0.05$. For equal variance the t-test showed $t = 19.827$ with 1852.239 degrees of freedom (*df*) and has an associated probability (sig. {2-sided}) of $p < 0.05$ level of significance.

Next, the aggregated mean data from all five survey questions in Part A Facilities, (QA1-R – QA5-R) were tested to determine if there was a significant difference in the response patterns between the ESC and the community college respondents. Surveys with no responses or those respondents who responded"Does Not Apply" were omitted from this analysis. Responses "Excellent" and "Good" were combined together to become "Satisfactory" and the "Poor" and "Not Acceptable" responses were combined to become "Not Satisfactory" for this analysis. The category of "Fair" remained as "Fair" for this analysis.

All computations were conducted with Statistical Packages for Social Sciences (SPSS, 2002). In addition to the t-test analysis, the analysis for this research area utilized the Pearson Chi-square as the statistical test to examine the hypothesis. The means of the two research populations were computed and the comparisons made for the aggregated data under Part A, Facilities. Both tests, the t-test and the Chi-Square test, revealed that there is a significant difference in the customer satisfaction of the facilities, between the community college JobLink Career Centers and the ESC JobLink Career Centers. Each analysis

conducted documented significant differences in the mean scores as a measure of central tendency. The researcher concluded that each of these distributions did not occur by chance. Therefore, the null hypothesis for research Question One was rejected at the $p < 0.05$ level.

Research Question Two: Are there any significant differences in the **staff services** between the two data sets?

H_0^2: There are no significant differences in the customer satisfaction rankings for staff services between the community college JobLink Career Centers and the ESC JobLink Career Centers.

The survey contained four separate questions in Part B, Staff Services. Survey respondents were asked to rank each of the four questions. The questions asked customers to respond to how quickly they were served at the center (QB1-R); how friendly the staff was to them (QB2-R); how respectful/polite the staff was (QB3-R); and how well the staff helped provide the information or services needed (QB4-R). In Chapter Four, tables illustrated the descriptive statistics associated with the research question and a comprehensive review of the data examined the frequency distributions of the data and also showed the comparisons between the data sets listing the count, and the valid percent within the two locations, ESC and community colleges. Frequency distributions for the total responses for questions QB1-R – QB4-R of the survey questions contained in Part B, Staff Services, including the numbers for Missing Data were also listed.

The data from all four survey questions in Part B, Facilities (QB1-R – QB4-R) were first tested to determine if there was a significant difference in satisfaction between the two means. To examine the degree of satisfaction within each of the four research questions, each survey question was tested for significance with independent sample t-tests. The independent sample t-test procedure compared the means for the two groups of cases. In this study, the subjects were assigned to two groups, based on where the subjects received their JobLink Career Center services – Employment Security Commission (ESC) or Community Colleges. The output of the t- test provides the test statistic, the degrees of freedom (*df*), the standard error and a two-sided p-value. The large sample t-test does not does not assume equal variances, therefore the value of the test statistic and the standard error are shown in the unequal variances row of the data output as part of the Tables shown in Chapter Four.

An explanation is required in order to understand how the coding responses were assigned and how the mean numbers were computed. In the statistical package used to analyze this data (SPSS, 2002) numbers were assigned for the various coding categories. The researcher assigned a 1 for Does Not Apply, a 2 for Excellent, a 3 for Good, a 4 for Fair, a 5 for Poor and a 6 for Not Acceptable. Responses with either missing data or "Does Not Apply" with a score of "1" were excluded from any computations. The t-test result statistics for

a two sample test for Part B of the survey questions (QB1-R – QB4-R) revealed that for unequal variances the t-test showed t = 19.085 with 4762 degrees of freedom (*df*), and has an associated probability (sig.{2-tailed}) of $p < 0.05$. For equal variance the t-test showed t = 26.925 with 2884.168 degrees of freedom (*df*) and has an associated probability (sig. {2-sided}) of $p < 0.05$ level of significance.

Next, the aggregated mean data from all four survey questions in Part B Staff Services, (QB1-R – QB4-R) were tested to determine if there was a significant difference in the response patterns between the ESC and the community college respondents. Surveys with no responses or those surveys where the respondents indicated "Does Not Apply" were omitted from this analysis. Responses "Excellent" and "Good" were combined together to become "Satisfactory" and the "Poor" and "Not Acceptable" responses were combined to become "Not Satisfactory" for this analysis. The category of "Fair" remained as "Fair" for this analysis.

All computations were conducted with Statistical Packages for Social Sciences (SPSS, 2002). In addition to the t-test analysis, the analysis for this question utilized the Pearson Chi-square as the statistical test to examine the hypothesis. It was determined earlier in this study that the null hypothesis would be rejected at the $p < 0.05$ level of significance. The means of the two research populations were computed and the comparisons made for the

aggregated data under Part B, Staff Services. Both tests, the t-test and the Chi-Square test revealed that there is a significant difference in the customer satisfaction of the staff services between the community college JobLink Career Centers and the ESC JobLink Career Centers. Each analysis conducted documented significant differences in the mean scores as a measure of central tendency. The researcher concluded that each of these distributions did not occur by chance. Therefore, the null hypothesis for research Question Two was rejected at the $p < 0.05$ level of significance.

Research Question Three: Are there any significant differences in the **services** between the two data sets?

H_0^3: There are no significant differences in the customer satisfaction rankings for service between the community college JobLink Career Centers and the ESC JobLink Career Centers.

The survey contained four separate questions in Part C, Services. Survey respondents were asked to rank each of the four questions. The questions asked customers to respond to how easy it was to get the services needed (QC1-R); how long it took to receive the services needed (QC2-R); how well the services provided met their needs (QC3-R); and how helpful the information provided was to them (QC4-R). The data from all four survey questions in Part C, Services from both the community college respondents and the ESC respondents were aggregated. In Chapter Four, tables illustrated the descriptive statistics associated with the research question and a comprehensive review of the data

examined the frequency distributions of the data and also showed the comparisons between the data sets listing the count, and the valid percent within the two locations, ESC and community colleges. Frequency distributions for the total responses for questions QC1-R – QC4-R of the survey questions contained in Part C, Services, including the numbers for Missing Data were also listed.

The data from all four survey questions in Part C, Services (QC1-R – QC4-R) were first tested to determine if there was a significant difference in satisfaction between the two means. To examine the degree of satisfaction within each of the four research questions, each survey question was tested for significance with independent sample t-tests. The independent sample t-test procedure compared the means for the two groups of cases. In this study, the subjects were assigned to two groups, based on where the subjects received their JobLink Career Center services – Employment Security Commission (ESC) or Community Colleges. The output of the t- test provides the test statistic, the degrees of freedom (*df*), the standard error and a two-sided p-value. The large sample t-test does not does not assume equal variances, therefore the value of the test statistic and the standard error are shown in the unequal variances row of the data output as part of the Tables shown in Chapter Four.

An explanation is required in order to understand how the coding responses were assigned and how the mean numbers were computed. In the

statistical package used to analyze this data (SPSS, 2002) numbers were assigned for the various coding categories. The researcher assigned a 1 for Does Not Apply, a 2 for Excellent, a 3 for Good, a 4 for Fair, a 5 for Poor and a 6 for Not Acceptable. Responses with either missing data or "Does Not Apply" with a score of "1" were excluded from any computations. The t-test result statistics for a two sample test for Part C of the survey questions (QC1-R – QC4-R) revealed that for unequal variances the t-test showed $t = 16.112$ with 4718 degrees of freedom (*df*), and has an associated probability (sig.{2-tailed}) of $p < 0.05$. For equal variance the t-test showed $t = 20.119$ with 2098.036 degrees of freedom (*df*) and has an associated probability (sig. {2-sided}) of $p < 0.05$ level of significance.

Next, the aggregated mean data from all four survey questions in Part C Services, (QC1-R – QC4-R) were tested to determine if there was a significant difference in the response patterns between the ESC and the community college respondents. Surveys with no responses or those surveys where the respondents indicated "Does Not Apply" were omitted from this analysis. Responses "Excellent" and "Good" were combined together to become "Satisfactory" and the "Poor" and "Not Acceptable" responses were combined to become "Not Satisfactory" for this analysis. The category of "Fair" remained as "Fair" for this analysis.

All computations were conducted with Statistical Packages for Social Sciences (SPSS, 2002). In addition to the t-test analysis, the analysis for this question utilized the Pearson Chi-square as the statistical test to examine the hypothesis. It was determined earlier in this study that the null hypothesis would be rejected at the $p < 0.05$ level of significance. The means of the two research populations were computed and the comparisons made for the aggregated data under Part C, Services. Both tests, the t-test and the Chi-Square test revealed that there is a significant difference in the customer satisfaction of the services between the community college JobLink Career Centers and the ESC JobLink Career Centers. Each analysis conducted documented significant differences in the mean scores as a measure of central tendency. The researcher concluded that each of these distributions did not occur by chance. Therefore, the null hypothesis for research Question Three was rejected at the $p < 0.05$ level of significance.

Research Question Four: Are there any significant differences in the **self service facilities** between the two data sets?

H_0^4: There are no significant differences in the customer satisfaction rankings in the self service facilities between the community college JobLink Career Centers and the ESC JobLink Career Centers.

The survey contained six separate questions in Part D, Self-Service Facilities. Survey respondents were asked to rank each of the six questions. The

questions asked customers to respond to whether equipment and materials were easy to use (QD1-R); if information they needed was easy to get (QD2-R); and the length of time they waited to use the resources and/or materials (QD3-R); if they required staff assistance while using the self-service facilities(QD4-R), were staff available to them (QD5-R), and were the staff knowledgeable of resources (QD6-R).

The data from all six survey questions in Part D, Self-Service Facilities from both the community college respondents and the ESC respondents were aggregated. In Chapter Four, tables illustrated the descriptive statistics associated with the research question and a comprehensive review of the data examined the frequency distributions of the data and also showed the comparisons between the data sets listing the count, and the valid percent within the two locations, ESC and community colleges. Frequency distributions for the total responses for questions QD1-R - QD6-R of the survey questions contained in Part D, Self Services, including the numbers for Missing Data were also listed.

The data from all six survey questions in Part D, Self Services (QD1-R - QD6-R) were first tested to determine if there was a significant difference in satisfaction between the two means. To examine the degree of satisfaction within each of the six research questions, each survey question was tested for significance with independent sample t-tests. The independent sample t-test procedure compared the means for the two groups of cases. In this study, the

subjects were assigned to two groups, based on where the subjects received their JobLink Career Center services – Employment Security Commission (ESC) or Community Colleges. The output of the t- test provides the test statistic, the degrees of freedom (*df*), the standard error and a two-sided p-value. The large sample t-test does not does not assume equal variances, therefore the value of the test statistic and the standard error are shown in the unequal variances row of the data output as part of the Tables shown in Chapter Four.

An explanation is required in order to understand how the coding responses were assigned and how the mean numbers were computed. In the statistical package used to analyze this data (SPSS, 2002) numbers were assigned for the various coding categories. The researcher assigned a 1 for Does Not Apply, a 2 for Excellent, a 3 for Good, a 4 for Fair, a 5 for Poor and a 6 for Not Acceptable. Responses with either missing data or "Does Not Apply" with a score of "1" were excluded from any computations. The t-test result statistics for a two sample test for Part D of the survey questions (QD1-R – QD6-R) revealed that for unequal variances the t-test showed $t = 13.011$ with 3927 degrees of freedom (*df*), and has an associated probability (sig.{2-tailed}) of $p < 0.05$. For equal variance the t-test showed $t = 15.957$ with 1512.226 degrees of freedom (*df*) and has an associated probability (sig. {2-sided}) of $p < 0.05$ level of significance.

Next, the aggregated mean data from all four survey questions in Part D Self Services, (QD1-R – QD6-R) were tested to determine if there was a significant difference in the response patterns between the ESC and the community college respondents. Surveys with no responses or those surveys where the respondents indicated "Does Not Apply" were omitted from this analysis. Responses "Excellent" and "Good" were combined together to become "Satisfactory" and the "Poor" and "Not Acceptable" responses were combined to become "Not Satisfactory" for this analysis. The category of "Fair" remained as "Fair" for this analysis.

All computations were conducted with Statistical Packages for Social Sciences (SPSS, 2002). In addition to the t-test analysis, the analysis for this question utilized the Pearson Chi-square as the statistical test to examine the hypothesis. It was determined earlier in this study that the null hypothesis would be rejected at the $p< 0.05$ level of significance. The means of the two research populations were computed and the comparisons made for the aggregated data under Part D, Self Services. Both tests, the t-test and the Chi-Square test revealed that there is a significant difference in the customer satisfaction of the self services between the community college JobLink Career Centers and the ESC JobLink Career Centers. Each analysis conducted documented significant differences in the mean scores as a measure of central

tendency. The researcher concluded that each of these distributions did not occur by chance. Therefore, the null hypothesis for research Question Four was rejected at the $p < 0.05$ level of significance.

Research Question Five: Are there any significant differences in the **overall rating of services** between the two data sets?

H_0^5: There are no significant differences in the customer satisfaction overall rating of services between the community college JobLink Career Centers and the ESC JobLink Career Centers.

The survey contained one question in Part E, Overall of the survey (QE1-R). Survey respondents were asked to rate their overall experience with the services they received. The data from the responses contained in Part E, Overall, from the community college respondents and the ESC respondents were aggregated.

The data from all this survey question in Part E, Overall from both the community college respondents and the ESC respondents were aggregated. In Chapter Four, tables illustrated the descriptive statistics associated with the research question and a comprehensive review of the data examined the frequency distributions of the data and also showed the comparisons between the data sets listing the count, and the valid percent within the two locations, ESC and community colleges. Frequency distributions for the total responses for

the final survey question (QE1-R) contained in Part E, Overall, including the numbers for Missing Data were also listed.

The data were first tested to determine if there was a significant difference in satisfaction between the two means. To examine the degree of satisfaction within the research questions, the survey question was tested for significance with independent sample t-tests. The independent sample t-test procedure compared the means for the two groups of cases. In this study, the subjects were assigned to two groups, based on where the subjects received their JobLink Career Center services – Employment Security Commission (ESC) or Community Colleges. The output of the t- test provides the test statistic, the degrees of freedom (*df*), the standard error and a two-sided p-value. The large sample t-test does not does not assume equal variances, therefore the value of the test statistic and the standard error are shown in the unequal variances row of the data output as part of the Tables shown in Chapter Four.

An explanation is required in order to understand how the coding responses were assigned and how the mean numbers were computed. In the statistical package used to analyze this data (SPSS, 2002) numbers were assigned for the various coding categories. The researcher assigned a 1 for Does Not Apply, a 2 for Excellent, a 3 for Good, a 4 for Fair, a 5 for Poor and a 6 for Not Acceptable. Responses with either missing data or "Does Not Apply" with a

score of "1" were excluded from any computations. The t-test result statistics for a two sample test for Part E of the survey questions (QE1-R) revealed that for unequal variances the t-test showed $t = 14.639$ with 4209 degrees of freedom (*df*), and has an associated probability (sig.{2-tailed}) of $p < 0.05$. For equal variance the t-test showed $t = 21.229$ with 1846.205 degrees of freedom (*df*) and has an associated probability (sig. {2-sided}) of $p < 0.05$ level of significance.

Next, the aggregated mean data from the one survey question in Part E Overall, (QE1-R) were tested to determine if there was a significant difference in the response patterns between the ESC and the community college respondents. Surveys with no responses or those surveys where the respondents indicated "Does Not Apply" were omitted from this analysis. Responses "Excellent" and "Good" were combined together to become "Satisfactory" and the "Poor" and "Not Acceptable" responses were combined to become "Not Satisfactory" for this analysis. The category of "Fair" remained as "Fair" for this analysis.

All computations were conducted with Statistical Packages for Social Sciences (SPSS, 2002). In addition to the t-test analysis, the analysis for this question utilized the Pearson Chi-square as the statistical test to examine the hypothesis. It was determined earlier in this study that the null hypothesis would be rejected at the $p < 0.05$ level of significance. The means of the two research populations were computed and the comparisons made for the

aggregated data under Part E, Overall. Both tests, the t-test and the Chi-Square test revealed that there is a significant difference in the customer satisfaction of the overall services between the community college JobLink Career Centers and the ESC JobLink Career Centers. Each analysis conducted documented significant differences in the mean scores as a measure of central tendency. The researcher concluded that each of these distributions did not occur by chance. Therefore, the null hypothesis for research Question Five was rejected at the $p < 0.05$ level of significance.

Summary of Methodology

In Chapter Three, the researcher provided a description of the study's research methods and the population and sample selected to participate in the study. In this chapter, the researcher also specifically outlined the methodology employed in this study. The survey instrument used to capture the data was described as well as the data collection and analysis strategies. Research questions with their corresponding null hypotheses were presented, and the limitations of the study were explained.

CHAPTER FOUR: RESULTS

In this chapter, the researcher reported the results of the data collected in this study and their analyses. Survey response rates and descriptive data which demonstrated the representativeness of the sample were also provided. Additionally, demographic data collected from the sample of JobLink Career Center customers from both ESC and the community colleges were presented. Finally, the results of the five null hypotheses tested in this study were reported.

Survey Respondents

Data collection was achieved through surveys given on-site to customers of selected community college JobLink Career Centers. Marshall & Rossman (1999) recommend that the researcher seek a close approximation to what can be described as an ideal site. The following considerations were used to determine the research site and sample: (1) entry to the site is accessible and possible, (2) a high probability exists to gather completed survey documents, and (3) the researcher had reasonable assurances that quality data can be obtained.

The sites selected for this study were the JobLink Career Centers located on selected community college campuses through out the state of North Carolina. There were thirty community colleges that hosted JobLink Career Centers on college campuses in North Carolina. Based on the considerations identified by Marshall & Rossman (1999), the following ten community colleges were selected to participate in this study.

1. Blue Ridge Community College, Flat Rock, NC

2. Brunswick Community College, Supply, NC
3. Coastal Carolina Community College, Jacksonville, NC
4. Davidson Community College, Lexington, NC
5. Guilford Technical Community College, High Point , NC
6. Johnston Community College, Smithfield, NC
7. Lenoir Community College, Kingston, NC
8. McDowell Community College, Marion, NC
9. Pitt Community College, Greenville, NC
10. Southeastern Community College, Whiteville, NC

These colleges were selected because of their willingness to participate in the data collection phase, their willingness to implement measures to correct potential problem areas that may arise from the data analysis, and their overall representativeness of the community colleges' thirty JobLink Career Centers on college campuses. As Table 4.1 indicated, the community colleges listed above were each sent 100 copies of the survey instrument to administer to customers of the JobLink Career Centers. A few colleges requested additional surveys. Lenoir Community College and Johnston Community College each requested 100 additional survey forms. Southeastern Community College and Coastal Carolina Community College each requested 50 additional survey forms. All surveys were individually numbered in sequence as to identify the college returning the surveys. One college (Guilford) copied the survey form, which resulted in a duplicative numbering sequence. The researcher was able to identify this

problem and re-coded the additional forms that were submitted from that college in order to avoid identical codes being assigned to more than one survey form. Colleges were asked to batch the completed surveys to the researcher on a

Table 4. 1 Numbers of Surveys Submitted by Colleges

Participating Colleges	Number of Surveys Sent to Colleges	Number of Surveys Returned from Colleges	% of Surveys Returned by Colleges
Blue Ridge	100	61	61%
Brunswick	100	31	31%
Coastal Carolina	150	116	77.33%
Davidson	100	44	44%
Guilford	100	102	102%
Johnson	200	183	91.5%
Lenoir	200	161	80.5%
McDowell	100	62	62%
Pitt	100	78	78%
Southeastern	150	139	69.5%
Total	1,300	977	75.15%

weekly basis in order for the data to be keyed into an ACCESS data base in a timely manner. The time period in which the survey was administered was for

the month of September, 2001. Because of the national tragedies of September 11, 2001, the colleges experienced lower numbers of customers visiting the JobLink Career Centers and requested an extension of time in order to collect sufficient data. An extension of time was granted to administer the surveys until October 15, 2001. All surveys were submitted and keyed into the ACCESS data base by October 20, 2001. A total of 1,300 surveys were sent to the colleges with a total of 977 surveys being returned from the ten colleges. This yielded a response rate of 75.15% on the surveys that were actually returned.

The Employment Security Commission mailed 15,183 survey instruments to customers from 15 different ESC sites, and 4,894 actual responses were returned. This yielded a response rate of 32.2%. Surveys were sent to customers that had used the services of the following local ESC/JobLink Career Center office sites:

1. Albemarle ESC
2. Clinton ESC
3. Dunn ESC
4. Edenton ESC
5. Franklin/Sylva ESC
6. Kenansville ESC
7. Laurinburg/Raeford ESC
8. Marion ESC
9. Morehead City ESC

10. Murphy ESC

11. Rockingham ESC

12. Shallotte ESC

13. Washington ESC

14. Whiteville ESC

15. Williamston/ Ahoskie ESC

Demographics

This section reported the demographic data collected from the study participants. There were four demographic questions asked in the community college survey that were compared to the demographic questions that the Employment Security Commission asked. These four questions provided information on: race, age, gender and educational status. The purpose for asking these questions was to provide a description of who the respondents were and how representative they were of the population.

Table 4.2 showed the composition of two sets of respondents--one from the Employment Security Commission (ECS) JobLink Career Centers and one from the Community College JobLink Career Centers. In both populations, Whites represented the largest subset of respondents. Table 4.2 illustrated that 61.5% (3012) of the respondents from the Employment Security Commission were White and 32.9% (1612) of the respondents were African-American, while 41.6% (406) of the respondents from the community colleges were African-American and 42.7% (417) were White. The researcher noted that in the

community college population, the African-American subset, 41.6% (406) was approximately the same level as the White subset, 42.7% (417).

Table 4.2 Race of Survey Respondents

Race	ESC	Community Colleges
Not reported	1	92
Column %	.0%	9.4%
White	3012	417
Column %	61.5%	42.7%
Hispanic	121	38
Column %	2.5%	3.9%
American Indian	103	15
Column %	2.1%	1.5%
African-American	1612	406
Column %	32.9%	41.6%
Asian	21	9
Column %	.4%	.9%
Other/Unknown	24	0
Column %	.5%	0%
Total	4894	977
Column %	100.0%	100.0%

Table 4.3 identified the age of the respondents. The ESC reported 24.5% (1200) of the respondents were between 31-40 years old, while the community colleges reported that 34.8%(340) of the respondents were 21-30. The majority of the respondents from the community colleges were 19-30 years in age and the majority of respondents from ESC were between 21- 50 years of age. The community colleges had a younger population of survey respondents.

Table 4. 3 Age of Survey Respondents

Age	ESC	Community Colleges
Not reported	1	94
Column %	.0%	9.6%
Under 21	370	151
Column %	7.7%	15.5%
21-30	1189	340
Column %	24.3%	34.8%
31-40	1200	182
Column %	24.5%	18.6%
41-50	1113	146
Column %	22.7%	14.9%
Over 50	1021	64
Column %	20.9%	6.6%
Total	4894	977
Column %	100.0%	100.0%

Table 4.4 identified the gender of the survey respondents. Some differences were noted between the two sets of groups, with ESC reporting 57.3%

Table 4. 4 Gender of Survey Respondents

Gender	ESC	Community Colleges
Not Reported	1	109
Column %	.0%	11.2%
Female	2806	617
Column %	57.3%	63.2%
Male	2087	251
Column %	42.6%	25.7%
Total	4894	977
Column %	100.0%	100.0%

(2806) female respondents and 42.6% (2087) male respondents, while community colleges reported 63.2% (617) female respondents, and 25.7 (251) male respondents.

Table 4.5 identified the educational attainment of the respondents. The

Table 4. 5 Educational Attainment of Survey Respondents

Educational Level	ESC	Community Colleges
No response		
Count	1	158
% within column	.0%	16.2%
Less than High School		
Count	903	78
% within column	18.5%	8.0%
High School or GED		
Count	2547	547
% within column	52.0%	56.0%
2 years college		
Count	974	140
% within column	19.9%	14.3%
4 years college/more		
Count	469	54
% within column	9.6%	5.5%
Total		
Count	4894	977
% within column	100.0%	100.0%

table revealed that 56% (547) of the sample survey respondents from the community colleges had a high school diploma or a GED, and 52% (2547) of the sample survey respondents from the ESC population had a high school diploma or a GED. The table also illustrated that the 19.9% (974) of the ESC sample respondents reported that they had 2 years of college, while 14.3% (140) of the community college respondents claimed 2 years of college.

Findings

This study was guided by five research questions which in turn generated five separate null hypotheses. Survey questions were divided into five areas and questions were designed to investigate the overall impression of the respondents as to the Facilities, Staff Responsiveness, Services, Self-Service Facilities, and an Overall Rating. Table 3.1 in Chapter Three contained a complete list of the survey questions, however a brief synopsis of the questions were re-stated with each related research question and hypothesis. These five research areas were related to this investigation's research questions and hypotheses. This section presented the research questions and an individual data analysis and summary for each of the five hypotheses.

Research Question One and Related Hypothesis. Are there any significant differences in the facilities between the two data sets?

H_0^1: There are no significant differences in the customer satisfaction rankings for facilities between the community college JobLink Career Centers and the ESC JobLink Career Centers.

The survey contained five separate questions in Part A, Facilities. Survey respondents were asked to rank each of the five questions. In general, the survey asked the following questions - asked customers to respond to how the center looked (QA1-R); whether the center offered enough privacy (QA2-R); convenience of hours of operation (QA3-R); convenience of the center (QA4-R); and if services were easy to find and get in the building (QA5-R).

The data from all five survey questions in Part A, Facilities from both the community college respondents and the ESC respondents were aggregated. Table 4.6 illustrated the descriptive statistics associated with the research question and a comprehensive review of the data examined the frequency distributions of the data. Table 4.6 illustrated that the frequency distributions showed that 54.4% (2033) of the valid responses from ESC were Good, while 37.2% (1390) of the valid responses were in the Excellent ranking. Likewise, Table 4.6 listed the frequency distribution for the community college surveys and showed that 67.2% (649) of the valid response rankings fell in the Excellent category with 31.7% (306) falling into the Good category. Table 4.6 also showed the comparisons between the data sets listing the count, and the valid percent within the two locations, ESC and community colleges.

Table 4. 6 ESC and Community College Responses to Survey Questions Part A (Facilities) for Hypothesis One

Part A: Facilities Questions 1-5	ESC	COMMUNITY COLLEGES	TOTAL
Total Count	4894	977	5871
Missing Data	1082	8	1090
Does Not Apply	80	3	83
VALID COUNT	3732	966	4698
Excellent	1390	649	2039
Valid Percent	*37.2%*	*67.2%*	*43.4%*
Good	2033	306	2339
Valid Percent	*54.4%*	*31.7%*	*49.8%*
Fair	288	11	299
Valid Percent	*7.7%*	*1.1%*	*6.4%*
Poor	17	0	17
Valid Percent	*0.5%*	*0.0%*	*0.4%*
Not Acceptable	4	0	4
Valid Percent	*0.1%*	*0.0%*	*0.1%*

Table 4.7 and Table 4.8 showed the frequency distributions for the total responses for questions QA1-R—QA5-R of the survey questions contained in Part A including the numbers for Missing Data. Table 4.7 listed the ESC total responses per question and Table 4.8 listed the community college total responses for the questions contained in Part A of the survey.

Table 4. 7 Frequency Distributions for ESC Data for Hypothesis One

ESC A: Facilities	QA1-R	QA2-R	QA3-R	QA4-R	QA5-R
Excellent	1429	1332	1478	1506	1583
Good	1864	1689	1830	1698	1735
Fair	258	488	307	335	325
Poor	22	119	47	61	72
Not Acceptable	8	26	11	20	24
Does Not Apply	181	111	96	131	45
Missing Data	1132	1129	1125	1143	1110
Total	4894	4894	4894	4894	4894

Table 4. 8 Frequency Distributions for Community College Data for Hypothesis One

Community Colleges A: Facilities	QA1-R	QA2-R	QA3-R	QA4-R	QA5-R
Excellent	680	583	642	638	637
Good	275	307	276	272	276
Fair	10	45	26	38	25
Poor	0	4	4	1	3
Not Acceptable	0	1	1	0	2
Does Not Apply	1	18	9	3	6
Missing Data	11	19	19	25	28
Total	977	977	977	977	977

The researcher noted the high number of "no responses" from the ESC respondents on Part A of the survey at 22.1% (1082) of the total surveys analyzed. The researcher also noted that the community college data did not have any Poor or Not Acceptable responses indicated and very few, 11 (1.1%) of the valid responses in the Fair category.

The data from all five survey questions in Part A, Facilities (QA1-R – QA5-R) were first tested to determine if there was a significant difference in satisfaction between the two means. To examine the degree of satisfaction within each of the five research questions, each survey question was tested for significance with independent sample t-tests. The independent sample t-test procedure compared the means for the two groups of cases. In this study, the subjects were assigned to two groups, based on where the subjects received their JobLink Career Center services – Employment Security Commission (ESC) or Community Colleges. It was determined earlier in this study that the null hypothesis would be rejected at the $p < 0.05$ level of significance.

In Chapter Three, an explanation was presented that illustrated how codes for responses were assigned and how the mean numbers were computed. In the statistical package used to analyze this data (SPSS, 2002) numbers were assigned for the various coding categories. The researcher assigned a 1 for Does Not Apply, a 2 for Excellent, a 3 for Good, a 4 for Fair, a 5 for Poor and a 6 for Not Acceptable. Responses with either missing data or "Does Not Apply" with a score of a "1" were excluded from any computations.

Next, the aggregated mean data from all five survey questions in Part A Facilities, (QA1-R – QA5-R) were tested to determine if there was a significant difference in the response patterns between the ESC and the community college respondents. Surveys with no responses or those respondents who responded "Does Not Apply" were omitted from this analysis. Responses "Excellent" and "Good" were combined together to become "Satisfactory" and the "Poor" and "Not Acceptable" responses were combined to become "Not Satisfactory" for this anaylsis. The category of "Fair" remained as "Fair" for this analysis. Table 4.9 illustrated the distribution for Part A of the survey with this classification nomenclature.

Table 4. 9 ESC and Community College Descriptive Statistics and Chi-Square Test Data for Hypothesis One

Part A: Facilities	ESC	Community Colleges	Total
Satisfactory			
Count	3423	955	4378
Column %	*91.7%*	*98.9%*	*93.2%*
Fair			
Count	288	11	299
Column %	*7.7%*	*1.1%*	*6.4%*
Not Satisfactory			
Count	*21*	*0*	*21*
Column %	*0.6%*	*0.0%*	*0.4%*
TOTAL			
Count	3732	966	4698
Column%	*100%*	*100%*	*100%*

Table 4.10 illustrated the descriptive statistics used for the t-test for Part A, Facilities (QA1-R - QA5-R) of the survey and the summary responses for each research question contained in Part A. Table 4.10 identified the mean and other descriptive statistics for the questions concerning Part A, Facilities of the survey. The data listed in Table 4.10 revealed that the mean score for ESC was 2.72 and the mean score for the community college data was 2.34. A 2.72 mean for the ESC data is closer to a three (3), which could be translated as Good, compared to the community college mean of 2.34 for this question which is closer to a two (2) or Excellent ranking.

Table 4. 10 Mean Scores of ESC and Community College Data for Part A (Facilities) Survey Questions

ESC		Part A Facilities	Community Colleges		Part A Facilities
N Valid		3732	N Valid		966
Missing/Does Not Apply		1162	Missing/Does Not Apply		11
Mean		2.72	Mean		2.34
Std. Error		.010	Std. Error		.016
Median		3.00	Median		2.00
Mode		3	Mode		2
Std. Deviation		.631	Std. Deviation		.497
Variance		.398	Variance		.247
Range		4	Range		2
Minimun		2	Minimun		2
Maximum		6	Maximum		4
Percentiles			Percentiles		
	25	2.00		25	2.00
	50	3.00		50	2.00
	75	3.00		75	3.00

Table 4.11 listed the t-test result statistics for a two sample test for Part A of the survey questions (QA1-R - QA5-R). For unequal variances the t-test showed t = 17.270, for equal variance the t-test showed t = 19.827 which resulted in $p < 0.05$.

Table 4. 11 ESC and Community College Statistics for Two-Sample T-Test Data for Part A (Facility) Survey Questions for Hypothesis One

Part A: Facilities	N	MEAN	STD. DEV	STD. ERROR
ESC	3732	2.72	.631	.010
Community Colleges	966	2.34	.497	.016
Variances	**T**	**DF**	Asymp. Sig (2-sided)	
Unequal	17.270	4697	.000	
Equal	19.827	1852.239	.000	

All computations were conducted with Statistical Packages for Social Sciences (SPSS, 2002). In addition to the t-test analysis, the analysis for this question utilized the Pearson Chi-square as the statistical test to examine the hypothesis. It was determined earlier in this study that the null hypothesis would be rejected at the $p < 0.05$ level of significance. The means of the two research populations were computed and the comparisons made for the

aggregated data under Part A, Facilities. Table 4.12 listed the Chi-Square test data for significance for Part A of the survey. Both tests, the t-test and the Chi-

Table 4. 12 Chi-Square Test for Hypothesis One

	Value	df	Asymp. Sig (2-sided)
Pearson Chi-Square*	61.812	2	.000
Likelihood Ratio	86.949	2	.000
N of Valid Cases	4698		

* 1 cell (16.7%) have expected count less than 5. The minimum expected count is 4.32.

Square test, revealed that there is a significant difference in the customer satisfaction of the facilities, between the community college JobLink Career Centers and the ESC JobLink Career Centers. Each analysis conducted documented significant differences in the mean scores as a measure of central tendency. The researcher concluded that each of these distributions did not occur by chance. Therefore, the null hypothesis for research Question One was rejected at the $p < 0.05$ level of significance.

Research Question Two and Related Hypothesis. Are there any significant differences in the staff services between the two data sets?

H_0^2: There are no significant differences in the customer satisfaction rankings for staff services between the community college JobLink Career Centers and the ESC JobLink Career Centers.

The survey contained four separate questions in Part B, Staff Services. Survey respondents were asked to rank each of the four questions. The questions asked customers to respond to how quickly they were served at the center (QB1-R); how friendly the staff was to them (QB2-R); how respectful/polite the staff was (QB3-R); and how well the staff helped provide the information or services needed (QB4-R).

The data from all four survey questions in Part B, Staff Services from both the community college respondents and the ESC respondents were aggregated. Table 4.13 illustrated the descriptive statistics associated with the research question and a comprehensive review of the data examined the frequency distributions of the data. Table 4.13 illustrated that the frequency distributions showed that 47.3% (1797) of the valid responses from ESC fell in the Excellent category, with 39.6% (1504) of the valid responses were in the Good category. Likewise, Table 4.13 listed the frequency distributions from the community college data that showed 82.2% (795) of the valid responses fell in the Excellent category, with 16.6% (162) of the valid responses falling in the Good category. Table 4.13 also showed the comparisons between the data sets listing the count, and the valid percent within the two locations, ESC and community colleges.

Table 4. 13 ESC and Community College Responses to Survey Questions Part B (Staff) for Hypothesis Two

Part B: Staff Questions 1-4	ESC	COMMUNITY COLLEGES	TOTAL
Total Count	4894	977	5871
Missing Data	1077	9	1086
Does Not Apply	20	1	21
VALID COUNT	3797	967	4764
Excellent	1797	795	2592
Valid percent	*47.3%*	*82.2%*	*54.4%*
Good	1504	162	1666
Valid percent	*39.6%*	*16.8%*	*35.0%*
Fair	383	9	392
Valid percent	*10.1%*	*0.9%*	*8.2%*
Poor	91	1	92
Valid percent	*2.4%*	*0.1%*	*1.9%*
Not Acceptable	22	0	22
Valid percent	*0.6%*	*0.0%*	*0.5%*

Table 4.14 and 4.15 showed the frequency distributions for the total responses for questions QB1-R - QB4-R of the survey questions contained in Part B, Staff Services, including the numbers for Missing Data. Table 4.14 listed the ESC total responses for each question and Table 4.14 listed the community college total responses for the questions contained in Part B of the survey.

Table 4. 14 Frequency Distributions for ESC Data for Hypothesis Two

ESC Part B: Staff Services	QB1-R	QB2-R	QB3-R	QB4-R
Excellent	1557	2184	2170	1849
Good	1504	1169	1192	1351
Fair	526	284	286	344
Poor	128	85	61	126
Not Acceptable	36	30	34	36
Does Not Apply	36	39	36	41
Missing Data	1107	1093	1115	1147
Total	4894	4894	4894	4894

Table 4. 15 Frequency Distributions for Community College Data for Hypothesis Two

Community Colleges Part B: Staff Services	QB1-R	QB2-R	QB3-R	QB4-R
Excellent	772	834	817	784
Good	163	123	132	152
Fair	22	8	5	15
Poor	4	1	2	1
Not Acceptable	0	0	0	1
Does Not Apply	3	1	1	6
Missing Data	13	10	20	18
Total	977	977	977	977

The researcher noted the high number of "No Responses" or invalid cases (1097) from the ESC data records. The researcher also noted community college

data did not contain any responses in the Not Acceptable category and only one valid response in the Fair category.

The data from all four survey questions in Part B, Facilities (QB1-R - QB4-R) were first tested to determine if there was a significant difference in satisfaction between the two means. To examine the degree of satisfaction within each of the four research questions, each survey question was tested for significance with independent sample t-tests. The independent sample t-test procedure compared the means for the two groups of cases. In this study, the subjects were assigned to two groups, based on where the subjects received their JobLink Career Center services - Employment Security Commission (ESC) or Community Colleges. It was determined earlier in this study that the null hypothesis would be rejected at the $p < 0.05$ level of significance.

In Chapter Three, an explanation was presented that illustrated how codes for responses were assigned and how the mean numbers were computed. In the statistical package used to analyze this data (SPSS, 2002) numbers were assigned for the various coding categories. The researcher assigned a 1 for Does Not Apply, a 2 for Excellent, a 3 for Good, a 4 for Fair, a 5 for Poor and a 6 for Not Acceptable. Responses with either missing data or "Does Not Apply" with a score of "1" were excluded from any computations.

Next, the aggregated mean data from all four survey questions in Part B Staff Services, (QB1-R - QB4-R) were tested to determine if there was a significant difference in the response patterns between the ESC and the

community college respondents. Surveys with no responses or those surveys where the respondents indicated "Does Not Apply" were omitted from this analysis. Responses "Excellent" and "Good" were combined together to become "Satisfactory" and the "Poor" and "Not Acceptable" responses were combined to become "Not Satisfactory" for this anaylsis. The category of "Fair" remained as "Fair" for this analysis. Table 4.16 illustrated the distribution for Part B of the survey with this classification nomenclature.

Table 4. 16 ESC and Community College Descriptive Statistics and Chi-Square Test Data for Hypothesis Two

Part B: Staff Services	ESC	Community Colleges	Total
Satisfactory			
Count	3301	957	4258
Column %	*86.9%*	*99.0%*	*89.4%*
Fair			
Count	383	9	392
Column %	*10.1%*	*0.9%*	*8.2%*
Not Satisfactory			
Count	*113*	*1*	*114*
Column %	*3.0%*	*0.1%*	*2.4%*
TOTAL			
Count	3797	967	4764
Column%	*100%*	*100%*	*100%*

Table 4.17 illustrated the descriptive statistics used for the t-test for Part B, Staff Services (QB1-R - QB4-R) of the survey and the summary responses for each research question contained in Part B. Table 4.17 identified the mean and other descriptive statistics for the questions concerning Part B, Staff Services of

the survey. The Table listed the mean score for ESC at 2.69 and for community colleges at 2.19. A 2.69 mean for the ESC data is closer to a three (3), which could be translated as Good, compared to the community college mean of 2.19 for this question which is closer to a two (2) or Excellent ranking.

Table 4. 17 Mean Scores of ESC and Community College Data for Part B (Staff Services) Survey Questions

ESC		Part B Staff	Community Colleges		Part B Staff
N Valid		3797	N Valid		967
Missing/Does Not Apply		1097	Missing/Does Not Apply		10
Mean		2.69	Mean		2.19
Std. Error		.013	Std. Error		.014
Median		3.00	Median		2.00
Mode		2	Mode		2
Std. Deviation		.792	Std. Deviation		.422
Variance		.628	Variance		.178
Range		4	Range		3
Minimum		2	Minimum		2
Maximum		6	Maximum		5
Percentiles			Percentiles		
	25	2.00		25	2.00
	50	3.00		50	2.00
	75	3.00		75	2.00

Table 4.18 listed the t-test result statistics for a two sample test for Part B, Staff Services of the survey questions (QB1-R – QB4-R).

Table 4. 18 ESC and Community College Statistics and Two-Sample T-Test Data for Part B (Staff Services) Survey Questions for Hypothesis Two

Part B: Staff Services	N	MEAN	STD. DEV	STD. ERROR
ESC	3797	2.69	.792	.013
Community Colleges	967	2.19	.422	.014
Variances	**T**	**DF**	Asymp. Sig (2-sided)	
Unequal	19.085	4762	.000	
Equal	26.925	2884.168	.000	

All computations were conducted with Statistical Packages for Social Sciences (SPSS, 2002). In addition to the t-test analysis, the analysis for this question utilized the Pearson Chi-square as the statistical test to examine the hypothesis. It was determined earlier in this study that the null hypothesis would be rejected at the $p< 0.05$ level of significance. The means of the two research populations were computed and the comparisons made for the aggregated data under Part B, Staff Services. Table 4.19 listed the Chi-Square test data for significance for Part B of the survey. Both tests, the t-test and the Chi-Square test revealed that there is a significant difference in the customer satisfaction of the staff services between the community college JobLink Career

Table 4. 19 Chi-Square Test for Hypothesis Two

	Value	df	Asymp. Sig (2-sided)
Pearson Chi-Square	117.580	2	.000
Likelihood Ratio	117.929	2	.000
N of Valid Cases	4764		

Centers and the ESC JobLink Career Centers. Each analysis conducted documented significant differences in the mean scores as a measure of central tendency. The researcher concluded that each of these distributions did not occur by chance. Therefore, the null hypothesis for research Question Two was rejected at the $p < 0.05$ level of significance.

Research Question Three and Related Hypothesis. Are there any significant differences in the services between the two data sets?

H_0^3: There are no significant differences in the customer satisfaction rankings for services between the community college JobLink Career Centers and the ESC JobLink Career Centers.

The survey contained four separate questions in Part C, Services. Survey respondents were asked to rank each of the four questions. The questions asked customers to respond to how easy it was to get the services needed (QC1-R); how long it took to receive the services needed (QC2-R); how well the services provided met their needs (QC3-R); and how helpful the information provided was to them (QC4-R). The data from all four survey questions in Part C, Services

from both the community college respondents and the ESC respondents were aggregated. Table 4.20 illustrated the descriptive statistics associated with the

Table 4. 20 ESC and Community College Responses to Survey Questions Part C (Services) for Hypothesis Three

Part C: Services Questions 1-4	ESC	COMMUNITY COLLEGES	TOTAL
Total Count	4894	977	5871
Missing Data	1083	15	1098
Does Not Apply	40	13	53
VALID COUNT	3771	949	4720
Excellent	1350	600	1950
Valid Percent	*35.8%*	63.2%	*41.3%*
Good	1725	311	2036
Valid Percent	*45.7%*	*32.8%*	*43.1%*
Fair	495	35	530
Valid Percent	13.1%	*3.7%*	*11.2%*
Poor	157	1	158
Valid Percent	4.2%	*0.1%*	3.3%
Not Acceptable	44	2	46
Valid Percent	*1.2%*	*0.2%*	*1.0%*

research question and a comprehensive review of the data examined the frequency distributions of the data. Table 4.20 showed that the frequency distributions revealed that 45.7% (1725) of the valid responses from the ESC data files fell in the Good category, with 35.8% (1350) of the valid responses falling

into the Excellent category. Likewise, Table 4.20 illustrated the frequency distribution for the community college survey respondent data for Part C of the survey and showed that 63.2% (600) of the community college valid responses fell into the Excellent category, with 32.8% (311) of the valid responses falling in the Good category. Table 4.20 also showed the comparisons between the data sets listing the count, and the valid percent within the two locations, ESC and the community colleges. The researcher noted that the percentage of the community college responses falling into the Excellent category are almost double the percentage of the ESC responses.

Table 4.21 and Table 4.22 showed the frequency distributions for the total responses for questions QC1-R – QC4-R of the survey questions contained in Part C of the survey. Table 4.21 listed the frequency distribution for the total ESC responses per question and Table 4.22 listed the community college total frequency responses for the questions posed under Part C of the survey.

The data from all four survey questions in Part C, Services (QC1-R - QC4-R) were first tested to determine if there was a significant difference in satisfaction between the two means. To examine the degree of satisfaction within each of the four research questions, each survey question was tested for significance with independent sample t-tests. The independent sample t-test procedure compared the means for the two groups of cases. In this study, the subjects were assigned to two groups, based on where the subjects received their

Table 4. 21 Frequency Distributions for ESC Data for Hypothesis Three

ESC Part C: Services	QC1-R	QC2-R	QC3-R	QC4-R
Excellent	1504	1340	1379	1490
Good	1678	1650	1532	1546
Fair	395	483	448	398
Poor	115	142	182	141
Not Acceptable	52	61	68	66
Does Not Apply	49	73	157	107
Missing Data	1101	1145	1128	1146
Total	4894	4894	4894	4894

Table 4. 22 Frequency Distributions for Community College Data for Hypothesis Three

Community College Part C: Services	QC1-R	QC2-R	QC3-R	QC4-R
Excellent	653	614	628	643
Good	261	272	251	241
Fair	28	43	46	24
Poor	3	3	3	3
Not Acceptable	3	3	3	3
Does Not Apply	12	22	23	16
Missing Data	17	20	23	47
Total	977	977	977	977

JobLink Career Center services – Employment Security Commission (ESC) or Community Colleges. It was determined earlier in the study that the null hypothesis would be rejected at the $p < 0.05$ level of significance.

In Chapter Three, an explanation was presented that illustrated how codes for responses were assigned and how the mean numbers were computed. In the statistical package used to analyze this data (SPSS, 2002) numbers were assigned for the various coding categories. The researcher assigned a 1 for Does Not Apply, a 2 for Excellent, a 3 for Good, a 4 for Fair, a 5 for Poor and a 6 for Not Acceptable. Responses with either missing data or "Does Not Apply" with a score of "1" were excluded from any computations.

Next, the aggregated mean data from all four survey questions in Part C Services, (QC1-R – QC4-R) were tested to determine if there was a significant difference in the response patterns between the ESC and the community college respondents. Surveys with no responses or those respondents who responded "Does Not Apply" were omitted from this analysis. Responses "Excellent" and "Good" were combined together to become "Satisfactory" and the "Poor" and "Not Acceptable" responses were combined to become "Not Satisfactory" for this analysis. The category of "Fair" remained as "Fair" for this analysis. Table 4.23 illustrated the distribution for Part C of the survey with this classification nomenclature.

Table 4.24 illustrated the descriptive statistics used for the t-test for Part C, Services (QC1-R – QC4-R) of the survey and the summary responses for each research question contained in Part C. Table 4.24 identified the mean and other

Table 4. 23 ESC and Community College Descriptive Statistics and Chi-Square Test Data for Hypothesis Three

Part C: Services	ESC	Community Colleges	Total
Satisfactory			
Count	3075	911	3986
Column %	*81.5%*	*96.0%*	*84.4%*
Fair			
Count	495	35	530
Column %	*13.1%*	3.7%	*11.2%*
Not Satisfactory			
Count	201	3	204
Column %	*5.3%*	*0.3%*	*4.3%*
TOTAL			
Count	3771	949	4720
Column %	*100.%*	*100.%*	*100.%*

descriptive statistics for the questions concerning Part C, Services of the survey. The mean score for the ESC survey respondents as illustrated in Table 4.24 is 2.89 and for the community college respondents is 2.41. The ESC mean score of 2.89 is closer to a three (3) Good, than to an Excellent ranking. The community college mean score of 2.41 is closer to the Excellent ranking.

Table 4.25 listed the t-test result statistics for a two sample test for Part C of the survey questions (QC1-R – QC4-R). All computations were conducted with Statistical Packages for Social Sciences (SPSS, 2002). In addition to the t-test

Table 4. 24 Mean Scores of ESC and Community College Data for Part C (Services) Survey Questions

ESC		Part C	Community Colleges		Part C
N Valid		3771	N Valid		949
Missing/Does Not Apply		1123	Missing/Does Not Apply		28
Mean		2.89	Mean		2.41
Std. Error		.014	Std. Error		.019
Median		3.00	Median		2.00
Mode		3	Mode		2
Std. Deviation		.866	Std. Deviation		.590
Variance		.749	Variance		.348
Range		4	Range		4
Minimun		2	Minimun		2
Maximum		6	Maximum		6
Percentiles	25	2.00	Percentiles	25	2.00
	50	3.00		50	2.00
	75	3.00		75	3.00

analysis, the analysis for this question utilized the Pearson Chi-square as the statistical test to examine the hypothesis. It was determined earlier in this study that the null hypothesis would be rejected at the $p< 0.05$ level of significance. The means of the two research populations were computed and the comparisons made for the aggregated data under Part C, Services. Table 4.26 listed the Chi-Square test data for significance for Part C of the survey. Both tests, the t-test and the Chi-Square test revealed that there is a significant difference in the customer satisfaction of the services between the community college JobLink Career Centers and the ESC JobLink Career Centers. Each analysis conducted documented significant differences in the mean scores as a measure of central

Table 4. 25 ESC and Community College Statistics for Two-Sample T-Test for Part C (Services) Survey Questions for Hypothesis Three

Part C: Services	N	MEAN	STD. DEV	STD. ERROR
ESC	3771	2.89	.866	.014
Community Colleges	949	2.41	.590	.019

Variances	T	DF	Asymp. Sig (2-sided)
Unequal	16.112	4718	.000
Equal	20.119	2098.036	.000

Table 4. 26 Chi-Square Test for Hypothesis Three

	Value	df	Asymp.Sig (2-sided)
Pearson Chi-Square	123.007	2	.000
Likelihood Ratio	163.397	2	.000
N of Valid Cases	4720		

tendency. The researcher concluded that each of these distributions did not occur by chance. Therefore, the null hypothesis for research Question Three was rejected at the $p < 0.05$ level of significance.

Research Question Four and Related Hypotheses. Research Question Four: Are there any significant differences in the self-service facilities between the two data sets?

H_0^4: There are no significant differences in customer satisfaction rankings in the self-service facilities between the community college JobLink Career Centers and the ESC JobLink Career Centers.

The survey contained six separate questions in Part D, Self-Service Facilities. Survey respondents were asked to rank each of the six questions. The questions asked customers to respond to whether equipment and materials were easy to use (QD1-R); if information they needed was easy to get (QD2-R); and the length of time they waited to use the resources and/or materials (QD3-R); if they required staff assistance while using the self-service facilities(QD4-R), were staff available to them (QD5-R), and were the staff knowledgeable of resources (QD6-R).

The data from all six survey questions in Part D, Self-Service Facilities from both the community college respondents and the ESC respondents were aggregated. Table 4.27 illustrated the descriptive statistics associated with the research question and a comprehensive review of the data examined the frequency distributions of the data. Table 4.27 illustrated that the frequency distributions showed that 45.0% (1432) of the valid responses from the ESC were Excellent , while 44.1% (1405) of the valid responses fell in the category of Good. Likewise, Table 4.27 also listed the frequency distributions for the community

Table 4. 27 ESC and Community College Responses to Survey Questions Part D (Self Services) for Hypothesis Four

Part D: Self Services Questions 1-6	ESC	COMMUNITY COLLEGES	TOTAL
Total Count	4894	977	5871
Missing Data	1150	180	1330
Does Not Apply	561	51	612
VALID COUNT	3183	746	3929
Excellent	1432	530	1962
Valid Percent	*45.0%*	*71.0%*	*49.9%*
Good	1405	200	1605
Valid Percent	*44.1%*	*26.8%*	*40.9%*
Fair	284	15	299
Valid Percent	*8.9%*	*2.0%*	*7.6%*
Poor	51	0	51
Valid Percent	*1.6%*	*0.0%*	*1.3%*
Not Acceptable	11	1	12
Valid Percent	*0.3%*	*0.1%*	*0.3%*

colleges which showed that 71.0% (530) of the valid responses fell in the Excellent category and 26.8% (200) of the valid responses fell in the Good category.

The researcher noted that 18.4% (180) of the community college responses for questions contained in Part D were invalid responses, and that 5.2%(51) of the valid responses indicated that they did not use the self-service facilities at the

community college Joblink Career Centers. Table 4.27 also showed the comparisons between the data sets listing the count, and the valid percent within the two locations, ESC and the community colleges.

Tables 4.28 and 4.29 showed the frequency distributions for the toal responses for questions QD1-R – QD6-R of the survey questions contained in

Table 4. 28 Frequency Distributions for ESC Data for Hypothesis Four

ESC Part D: Self Services	QD1-R	QD2-R	QD3-R	QD4-R	QD5-R	QD6-R
Excellent	1182	1247	1171	1172	1266	1365
Good	1403	1448	1377	1301	1037	997
Fair	255	321	362	363	257	209
Poor	50	84	85	72	72	61
Not Acceptable	23	29	29	37	29	27
Does Not Apply	763	573	639	689	958	931
Missing Data	1218	1192	1231	1260	1275	1304
Total	4894	4894	4894	4894	4894	4894

Part D including the numbers for Missing data. Table 4.28 listed the frequency distributions for the ESC total responses per question and Table 4.29 listed the community college responses for the questions contained in Part D of the survey.

Table 4. 29 Frequency Distributions for Community College Data for Hypothesis Four

Community Colleges Part D: Self Services	QD1-R	QD2-R	QD3-R	QD4-R	QD5-R	QD6-R
Excellent	456	478	469	471	541	528
Good	218	228	208	172	118	107
Fair	26	22	17	21	10	9
Poor	2	1	4	3	0	0
Not Acceptable	4	3	1	2	1	2
Does Not Apply	78	52	51	74	74	74
Missing Data	193	193	227	234	233	257
Total	977	977	977	977	977	977

The data from all six survey questions in Part D, Self Services (QD1-R -- QD6-R) were first tested to determine if there was a significant difference in satisfaction between the two means. To examine the degree of satisfaction within each of the six research questions, each survey question was tested for significance with independent sample t-tests. The t-test procedure compared the means for the two groups of cases. In this study, the subjects were assigned to two groups, based on where the subjects received their JobLink Career Center services - Employment Security Commission (ESC) or Community Colleges. It

was determined earlier in this study that the null hypothesis would be rejected at the $p < 0.05$ level of significance.

In Chapter Three, an explanation was presented that illustrated how codes for responses were assigned and how the mean numbers were computed. In the statistical package used to analyze this data (SPSS, 2002) numbers were assigned for the various coding categories. The researcher assigned a 1 for Does Not Apply, a 2 for Excellent, a 3 for Good, a 4 for Fair, a 5 for Poor and a 6 for Not Acceptable. Responses with either missing data or "Does Not Apply" with a score of "1" were excluded from any computations.

Next, the aggregated mean data from all four survey questions in Part D Services, (QD1-R – QD6-R) were tested to determine if there was a significant difference in the response patterns between the ESC and the community college respondents. Surveys with no responses or those respondents who responded "Does Not Apply" were omitted from this analysis. Responses "Excellent" and "Good" were combined together to become "Satisfactory" and the "Poor" and "Not Acceptable" responses were combined to become "Not Satisfactory" for this analysis. The category of "Fair" remained as "Fair" for this analysis. Table 4.30 illustrated the distribution for Part D of the survey with this classification nomenclature.

Table 4.31 illustrated the descriptive statistics used for the t-test for Part D, Self Services (QD1-R – QD6-R) of the survey and the summary responses for

Table 4. 30 ESC and Community College Descriptive Statistics and Chi-Square Test Data for Hypothesis Four

Part D: Self Services	ESC	Community Colleges	Total
Satisfactory			
Count	2837	730	3567
Column %	*89.1%*	*97.9%*	*90.8%*
Fair			
Count	284	15	299
Column %	*8.9%*	*2.0%*	*7.6%*
Not Satisfactory			
Count	62	1	63
Column %	*1.9%*	*0.1%*	*1.6%*
TOTAL			
Count	3183	746	3929
Column %	*100.%*	*100.%*	*100.%*

each research question contained in Part D. Table 4.31 identified the mean and the other descriptive statistics for the questions concerning Part D, Self Services of the survey. The data listed in Table 4.31 revealed the mean score for the ESC was 2.68 and the mean score for community college data was 2.31. The community college mean of 2.31 is closer to a two (2) or Excellent compared to the ESC mean of 2.68 which is closer to a three (3) or a Good. Again, the community college data are closer to the Excellent category that the Good category. Table 4.32 listed the t-test statistics for a two sample test for Part D of the survey questions (QD1-R – QD6-R). All computations were conducted with

Table 4. 31 Mean Scores of ESC and Community College Data for Part D (Self Services) Survey Questions

ESC		Part D Self-Service	Community Colleges		Part D Self-Service
N	Valid	3183	N	Valid	746
Missing/Does Not Apply		1711	Missing/Does Not Apply		231
Mean		2.68	Mean		2.31
Std. Error		.013	Std. Error		.019
Median		3.00	Median		2.00
Mode		2	Mode		2
Std. Deviation		.730	Std. Deviation		.521
Variance		.533	Variance		.272
Range		4	Range		4
Minimum		2	Minimum		2
Maximum		6	Maximum		6
Percentiles			Percentiles		
	25	2.00		25	2.00
	50	3.00		50	2.00
	75	3.00		75	2.00

Statistical Packages for Social Sciences (SPSS, 2002). In addition to the t-test for significance, the analysis for this question also utilized the Pearson Chi-square as the statistical test to examine the hypothesis. It was determined earlier in this study that the null hypothesis would be rejected at the $p< 0.05$ level of significance. The means of the two research populations were computed and the comparisons made for each of the six questions under Part D, Self Services.

Table 4. 32 ESC and Community College Statistics and Two-Sample T-Test Data for Part D (Self Services) Survey Questions for Hypothesis Four

Part D: Self Services	N	MEAN	STD. DEV	STD. ERROR
ESC	3183	2.68	.730	.013
Community Colleges	746	2.31	.521	.019

Variances	T	DF	Asymp. Sig (2-sided)
Unequal	13.011	3927	.000
Equal	15.957	1512.226	.000

Table 4.33 listed the Chi-Square test data for significance for Part D of the survey. Both tests, the t-test and the Chi-Square test, revealed that there is a significant difference in the customer satisfaction of the self service facilities between the community college JobLink Career Centers and the ESC JobLink

Table.4. 33 Chi-Square Test for Hypothesis Four

	Value	df	Asymp. Sig (2-sided)
Pearson Chi-Square	55.406	2	.000
Likelihood Ratio	74.568	2	.000
N of Valid Cases	3929		

Career Centers. Each analysis documented significant differences in the mean scores as a measure of central tendency. The researcher concluded that each of these distributions did not occur by chance. Therefore, the null hypothesis for research Question Four was rejected at the $p < 0.05$ level of significance.

Research Question Five and Related Hypothesis. Are there any significant differences in the overall rating of services between the two data sets.

H_0^5: There are no significant differences in the overall customer satisfaction rating of services between the community college JobLink Career Centers and the ESC JobLink Career Centers.

Part E, Overall of the survey contained one question (QE1-R). Survey respondents were asked to rate their overall experience with the services they received. The data from the responses contained in Part E, Overall, from the community college respondents and the ESC respondents were aggregated. Table 4.34 illustrated the descriptive statistics associated with the research question. A comprehensive review of the data examined the frequency distributions of the data. Table 4.34 illustrated that the frequency distributions showed 48.4% (1690) of the valid responses from the ESC respondents were Excellent , while 39.0% (1362) of the valid responses fell in the category of Good. Likewise, Table 4.34 illustrated for the community college data that 78.9% (564) of the valid responses were in the Excellent category while, 20.1% (144) of the valid responses were in the Good category. Table 4.34 also showed the

aggregated comparisons between the data sets listing the count, and the valid percent within the two locations, ESC and community colleges.

Table 4. 34 ESC and Community College Responses to Survey Questions Part E (Overall) for Hypothesis Five

Part E: Overall Question 1	ESC	COMMUNITY COLLEGES	TOTAL
Total Count	4894	977	5871
Missing Data	1310	254	1564
Does Not Apply	92	8	100
VALID COUNT	3492	715	4207
Excellent	1690	564	2254
Valid Percent	*48.4%*	*78.9%*	*53.6%*
Good	1362	144	1506
Valid Percent	*39.0%*	*20.1%*	*35.8%*
Fair	303	6	309
Valid Percent	*8.7%*	*0.8%*	*7.3%*
Poor	96	0	96
Valid Percent	*2.7%*	*0.0%*	*2.3%*
Not Acceptable	41	1	42
Valid Percent	*1.2%*	*0.1%*	*1.0%*

Table 4.35 showed the frequency distribution for the total responses for the overall question contained in Part E of the survey (QE1-R). For this question, the researcher noted the high number of No Responses or missing data from the ESC data files (1402) and from the community college files (262).

Table 4. 35 Frequency Distributions for ESC and Community College Data for Hypothesis Five

Part E: Overall QE1-R	Community Colleges	ESC
Excellent	564	1690
Good	144	1362
Fair	6	303
Poor	0	96
Not Acceptable	1	41
Does Not Apply	8	92
Missing Data	254	1310
Total	977	4894

The data were first tested to determine if there was a significant difference in satisfaction between the two means. To examine the degree of satisfaction within the research question, the survey question was tested for significance with an independent-sample t-test. The independent sample t-test procedure compared the means for the two groups of cases. In this study, the subjects were assigned to two groups, based on where the subjects received their JobLink Career Center services – Employment Security Commission (ESC) or Community Colleges.

In Chapter Three, an explanation was presented that illustrated how codes for responses were assigned and how the mean numbers were computed. In the statistical package used to analyze this data (SPSS, 2002) numbers were assigned for the various coding categories. The researcher assigned a 1 for Does Not Apply, a 2 for Excellent, a 3 for Good, a 4 for Fair, a 5 for Poor and a 6 for Not

Acceptable. Responses with either missing data or "Does Not Apply" with a score of "1" were excluded from any computations.

Next, the aggregated mean data for the one survey question in Part D Overall, (QD1-R) were tested to determine if there was a significant difference in the response patterns between the ESC and the community college respondents. Surveys with no responses or those respondents who responded "Does Not Apply" were omitted from this analysis. Responses "Excellent" and "Good" were combined together to become "Satisfactory" and the "Poor" and "Not Acceptable" responses were combined to become "Not Satisfactory" for this analysis. The category of "Fair" remained as "Fair" for this analysis. Table 4.36 illustrated the distribution for Part E of the survey with this classification nomenclature.

The data listed in Table 4.37 showed the mean score for ESC at 2.69 and the mean score for the community colleges at 2.22. Again, a number falling closer to the two (2) is closer to the Excellent category. The median score for the ESC data was a three (3), Good category, and the median score for the community college data was a two (2) in the Excellent category.

Table 4.38 showed the descriptive statistical data, and the two-sample t-test data for Part E of the survey (QE1-R).

Table 4. 36 ESC and Community College Statistics and Chi-Square Test Data for Hypothesis Five

Part E: Overall	ESC	Community Colleges	Total
Satisfactory			
Count	3052	708	3760
Column %	*87.4%*	*99.0%*	*89.4%*
Fair			
Count	303	6	309
Column %	*8.7%*	*0.8%*	*7.3%*
Not Satisfactory			
Count	137	1	138
Column %	*3.9%*	*0.1%*	*3.3%*
TOTAL			
Count	3492	715	4207
Column %	*100.%*	*100.%*	*100.%*

Table 4. 37 Mean Scores for ESC and Community College Data for Part E (Overall) Survey Questions

ESC		Part E Overall	Community Colleges		Part E Overall
N	Valid	3492	N	Valid	715
Missing/Does Not Apply		1402	Missing/Does Not Apply		262
Mean		2.69	Mean		2.22
Std. Error		.014	Std. Error		.017
Median		3.00	Median		2.00
Mode		2	Mode		2
Std. Deviation		.832	Std. Deviation		.456
Variance		.692	Variance		.208
Range		4	Range		4
Minimum		2	Minimum		2
Maximum		6	Maximum		6
Percentiles			Percentiles		
	25	2.00		25	2.00
	50	3.00		50	2.00
	75	3.00		75	2.00

Table 4. 38 ESC and Community College Statistics for Two-Sample T-Test for Part E (Overall) Survey Questions for Hypothesis Five

Part E: Overall	N	MEAN	STD. DEV	STD. ERROR
ESC	3492	2.69	.832	.014
Community Colleges	715	2.22	.456	.017

Variances	T	DF	Asymp. Sig (2-sided)
Unequal	14.636	4205	.000
Equal	21.229	1846.205	.000

All computations were conducted with Statistical Packages for Social Sciences (SPSS, 2002). In addition to the t-test for significance, the analysis for this question also utilized the Pearson Chi-square as the statistical test to examine the hypothesis. It was determined earlier in this study that the null hypothesis would be rejected at the $p< 0.05$ level of significance. The means of the two research populations were computed and the comparisons made for the question asked under Part E, Overall. Table 4.39 showed the Chi-square test for significance. Both tests, the t-test and the Chi-Square test, revealed that there was a significant difference in the overall rankings between the community college JobLink Career Centers and the ESC JobLink Career Centers. Each analysis documented significant differences in the mean scores as a measure of

central tendency. The researcher concluded that each of these distributions did not occur by chance. Therefore, the null hypothesis for research Question Five was rejected at the $p< 0.05$ level of significance.

Table 4. 39 Chi-Square Test for Hypothesis Five

	Value	df	Asymp. Sig (2-sided)
Pearson Chi-Square	84.504	2	.000
Likelihood Ratio	126.429	2	.000
N of Valid Cases	4207		

From the means reported in Table 4.37 the researcher determined that generally the respondents ranked the overall survey question in a positive manner. The means of 2.69 for ESC data and a 2.22 for the community college data indicated that the respondents evaluated the research area as being Good to Excellent. The mode indicated that Excellent was selected in Part B, (staff responsiveness); Part D, (self-service facilities); and Part E, (overall rating of services); while Good was selected most often for Part A, (facilities) and C, (services) for the ESC data.

Table 4.40 showed that ESC responses reported a mean of 2.72 for Part A, a mean of 2.69 for Part B, a mean of 2.89 for Part C, a mean of 2.68 for Part D, and a mean of 2.69 for Part E of the survey questions. Table 4.41 showed that the community college responses reported a mean for Part A of 2.34, Part B 2.19, Part C, 2.41, Part D, 2.31 and Part E, 2.22. This analysis illustrated that the community

Table 4. 40 Analysis of Statistical Data for ESC Survey Responses for all Five Hypotheses

ESC		Part A	Part B	Part C	Part D	Part E
N	Valid	3732	3739	3771	3183	3492
Missing/Does Not Apply		1162	1097	1123	1711	1402
Mean		2.72	2.69	2.89	2.68	2.69
Std. Error		.010	.013	0.14	0.13	.014
Median		3.00	3.00	3.00	3.00	3.00
Mode		3	2	3	2	2
Std. Deviation		.631	.792	.866	.730	.832
Variance		.398	.628	.749	.533	.692
Range		4	4	4	4	4
Minimum		2	2	2	2	2
Maximum		6	6	6	6	6
Percentiles						
	25	2.00	2.00	2.00	2.00	2.00
	50	3.00	3.00	3.00	2.00	3.00
	.75	3.00	3.00	3.00	3.00	3.00

college JobLink Career Centers ranked overall highest in Part B, Staff Services with a mean of 2.19. Table 4.40 and Table 4.41 contained an overall analysis of the mean data for both sets of respondents from the community colleges and ESC.

Table 4.42 listed a ranked comparison between the community college responses and the ESC responses of the mean scores for each survey question. The comparison revealed that the community college mean ranges were

Table 4. 41 Analysis of Statistical Data for Community College Survey Responses for all Five Hypotheses

Community Colleges		Part A	Part B	Part C	Part D	Part E
N	Valid	966	967	949	746	715
Missing/Does Not Apply		11	10	28	231	262
Mean		2.34	2.19	2.41	2.31	2.22
Std. Error		.016	.014	0.19	.019	.017
Median		2.00	2.00	2.00	2.00	2.00
Mode		2	2	2	2	2
Std. Deviation		.497	.422	.590	.521	.456
Variance		.247	.178	.348	.272	.208
Range		2	3	4	4	4
Minimun		2	2	2	2	2
Maximum		4	5	6	6	6
Percentiles						
	25	2.00	2.00	2.00	2.00	2.00
	50	2.00	2.00	2.00	2.00	2.00
	75	3.00	2.00	3.00	2.00	2.00

consistently higher, meaning closer to the Excellent category, than the ESC mean ranges. In Part B (Staff services) and Part E (Overall) of the survey, the community college mean ranges were 2.19 and 2.22 respectively. The mean ranges for the community college data rests between 2.19 for the lowest mean range and a 2.41 for the highest mean range compared to ESC data which fell between a high mean of 2.89 and a low mean of 2.68. Overall, all mean ranges at ESC were higher in comparison to the community college mean ranges. In this study, the lower the mean score the higher the customer satifaction levels with JobLink Career Centers.

Table 4. 42 Comparison of Mean Scores Between Community College and ESC Data for all Five Parts (A-E) of the Survey

Agencies	Part A	Part B	Part C	Part D	Part E
ESC	2.72	2.69	2.89	2.68	2.69
Community Colleges	2.34	2.19	2.41	2.31	2.22

Summary

In Chapter Four, the researcher presented the findings of this research study. Information regarding the survey response rates was provided. By presenting a profile of the population studied, information concerning the demographic questions posed by the study were answered. Each of the five research questions and corresponding hypotheses, along with the statistical analysis employed for each hypothesis, and relevant data results were presented. In Chapter Five, the final chapter, the researcher concluded this study by presenting a discussion of the findings, conclusions and implications, and making suggestions for additional research on the customer satisfaction measures for the JobLink Career Center System in North Carolina.

CHAPTER FIVE: DISCUSSION

This final chapter begins with a discussion on the representativeness of the population studied. The data results from the analyses of the five null hypotheses have been used to attempt to answer the research questions that guided this study. In addition, the findings, contributions and implications, and suggestions for further research generated by this study were also discussed.

Sample Representativeness

One of the limitations previously identified in this study, recognized that there were differences in the way in which data was collected for this study for the two different data sources. Community college survey responses were collected on-site at selected community college JobLink Career Centers, while the data collected through the ESC survey was collected through a mail survey. While this gave some concern to the researcher that the sample population might be under or over represented, inquiries into the populations of the two respective entities, (ESC and community colleges) provided additional data about the overall populations served by these agencies. One can estimate the randomness of the sample by comparing descriptive analyses of the demographic data with like data from the populations from which the sample is chosen. This allows for generalizations to be drawn and inferences to be made based on a representativeness of the populations.

Table 5.1 reported the race of the ESC active applicants that have applied for services from the ESC for Program Year 2000. A comparison of this data to

the sample population that was surveyed by the ESC as depicted in Table 4.2 revealed that the overall population of active applicants was 50.4% (389,846) White, and 39.4% (304,565) African-American, while the responding sample population represented 61.5% (3012) White and 32.9% (1612) African-American. The White population responding were over represented in the ESC survey sample. Another reported difference was the service level to the overall Hispanic population. Table 5.1 showed that 6.7% (51,743) of all active applicants registered with the ESC are Hispanic, yet the responding sample population represented only 2.5% (121) Hispanic. Therefore, a conclusion may be drawn that

Table 5. 1 Employment Security Commission Active Applicants Race Demographics for Program Year 2000

ESC Race	Number	Percent
White	389,846	50.4%
Black	304,565	39.45
Hispanic	51, 743	6.7%
Native American	11,192	1.4%
Asian & Pacific Islander	7.082	0.9%
Unknown	8,507	1.1%
Total	772, 935	100.0%

Data Source: Employment Security Commission Annual Statistical Data. Program Year 2000 - 2001.

Whites were over represented and that Hispanics were underrepresented in the ESC sample responding.

The overall community college student enrollment for Program Year 2000, represented 66.3% (512,248) White and 22.9% (177,037) African-American. Table 4.2 described the sample population from the community college respondents as representing 42.7% (417) Whites, and 41.6% (406) African-American. Therefore, the overall community population showed service to 66.3% (512,248) Whites, and the sample population of the survey respondents for Whites was 42.7% (417). Likewise, college enrollment figures showed that 22.9% (177,037) of the college

Table 5. 2 Overall Community College Student Enrollment by Race for Program Year 2000

Community College Race	Number	Percent
White	512,248	66.3%
Black	177,037	22.9%
Hispanic	51224	6.6%
Native American	10,605	1.4%
Asian & Pacific Islander	12,878	1.7%
Unknown	8,288	1.1%
Total	772,280	100.0%

Data Source: North Carolina Community College Annual Statistical Data. Program Year 2000 – 2001.

population is African-American, yet the sample population surveyed in this study represented 41.6% (406). The African-American population responding to the survey was almost double the typical college enrollment numbers for the African-American population, therefore African-Americans were significantly over represented in the community college sample responding.

Table 5.3 showed the age of the active applicants at the ESC. This table illustrated that the bulk of active applicants were between the ages of 22- 44 years of age, representing 65.1% (503,157) of the total. The age of the sample population responding, as listed on Table 4.3, showed a grouping of 21-30 years of age and a grouping of 31-40 years of age for a combined total of 2478 or 48.8%.

Table 5. 3 Employment Security Commission Active Applicants' Age Demographics for Program Year 2000

ESC Age	Number	Percent
Under 22	112,066	14.5%
22-44	503,157	65.1%
45-54	109,579	14.2%
55+	48,133	6.2%
Total	772, 935	100.0%

Data Source: Employment Security Commission Annual Statistical Data. Program Year 2000 – 2001.

Table 5.4 showed the overall community college enrollment by age groups. The table reflected that the largest numbers of students fall into the age range of 22-44 years of age, representing 57.0% (463,939) of the enrollment population.

The age of the sample responding, as listed on Table 4.3, showed a grouping of 21-30 years of age and a grouping of 31-40 years of age for a combined total of 522 or 53.4% of the survey respondents fell into this age category. The average age of a curriculum community college student was 37.8 years of age. This data demonstrated that the population responding for this study accurately reflected the age demographics of the community college students , therefore the data for the age was representative of the overall community college age data for the general college population.

Table 5. 4 Overall Community College Student Age (Duplicated Head Count) for Program Year 2000

Community College Age (Duplicated Headcount)	Number	Percent
Under 22	148,698	18.3%
22-44	463,939	57.0%
45-54	117,876	14.9%
55+	83,167	10.2%
Total	813,680	100.0%

Data Source: North Carolina Community College Annual Statistical Data. Program Year 2000 - 2001.

Table 5.5 represented the gender distribution for the active applicants from the ESC. The table showed that 49.4% (381,880) of the active applicants are male, while 50.5% (390,653) of the active applicants are female. The ESC survey respondents, as identified in Table 4.4 represented 57.3% (2806) female and 42.6% (2087) as male. The sample population reponding was slightly more female than the overall, larger ESC population.

Table 5. 5 Employment Security Commission Active Applicants' Gender Demographics for Program Year 2000

ESC Gender	Number	Percent
Male	381,880	49.4%
Female	390,653	50.5%
Unknown	402	0.1%
Total	772, 935	100.0%

Data Source: Employment Security Commission Annual Statistical Data. Program Year 2000 – 2001.

Table 5.6 represented the gender distribution for the overall community college students. The table showed that 48.0% (371,030) of the community college population are male, while 52.0% (401,250) are female. The community college survey respondents, as identified in Table 4.4, represented 63.2% (617)

Table 5. 6 Overall Community College Gender for Program Year 2000

Community College Gender	Number	Percent
Male	371, 030	48.0%
Female	401,250	52.0%
Total	772,280	100.0%

Data Source: North Carolina Community College Annual Statistical Data. Program Year 2000 - 2001.

female and 25.7% (251) as male. The researcher noted that 11.2% (109) of the respondents from the community colleges did not identify a gender. Females may be over represented in the sample population responding from the community colleges.

Based on the above analysis, it can be reasonably assumed that the community college sample population surveyed were not the typical overall population served by the community colleges. Therefore, it was difficult to draw generalizations and inferences based on a representativeness of the sample populations.

Research Questions

Research Question One. Are there significant differences in the customer satisfaction rankings for facilities between the two data sets? Yes, based on the data presented in the previous chapter, there are significant differences in the customer satisfaction rankings for facilities between the two hosting agencies -

community colleges and the ESC. Table 4.7 and Table 4.8 illustrated the frequency distributions between the two data sets. The frequency distribution for the community college survey respondents reported that 67.2% (649) of the responses indicated that the facilities where they received services were Excellent while the ESC frequency distribution showed a 37.2% (1390) as Excellent. Community colleges received almost twice the percentage reported in the Excellent category than reported for the ESC. Table 4.11 showed that the t-test result statistics for a two sample test for Part A of the survey questions (QA1-R - QA5-R) revealed that for unequal variances the t-test showed $t = 17.270$ with 4697 degrees of freedom (*df*), and has an associated probability (sig.{2-tailed}) of $p < 0.05$. For equal variance the t-test showed $t = 19.827$ with 1852.239 degrees of freedom (df) and has an associated probability (sig. {2-sided}) of $p < 0.05$ level of significance.

Were there additional areas that may contribute to the high percentage of community college respondents identifying Excellent in this category? Community colleges were asked to complete a college profile in addition to assisting with the collection of the actual survey documents. The profile may be found as Appendix J. Gleaning data from the college profile provided additional information with which to answer this question. The ESC Joblink Career Centers were located within the current structure of the ESC offices across the state. Community College JobLink Career Centers were located on community college campuses. Campuses have donated space in which these centers are housed.

Typically the space is modern and comfortable. Colleges have expended additional resources in developing and expanding the JobLink Career Centers. Many colleges have refurbished office space and have bought new partitions and carpet for the centers, carrying forth the color combinations of the JobLink logo. Community colleges have also offered alternative hours for the centers' operation. ESC offices were open from 8:00 a.m. until 5:00 p.m. Monday through Friday. Community colleges were open in the evening hours and on weekends. The colleges participating in this survey all (10 of 10) offer alternate hours of operation, with some Centers opening on Saturdays and others offering night hours during the week.

One of the questions that was asked of the survey respondents in this section relates to the ease and convenience of the facility. College campuses were well marked and accessible to residents of the State. While ESC may have more offices in North Carolina (90) than there are community colleges (58), no resident has to drive more than thirty miles to attend a community college. Another area of interest in the survey asked the respondents to rank the facility based on whether the facility offered enough privacy where one could speak freely. Community colleges scored very high on this particular question. All ESC offices do not provide individual cubicles, or private offices for personal interviews with the customers. Community colleges offered private rooms for counseling, testing or interviews with the customers of the JobLink Career Centers. One JobLink Career Center located at Pitt Community College was

housed in a 5,321 square foot building adjacent to the college campus. The center had over 20 offices, two waiting/reception areas, a primary resource room , a break room and a conference room. Other community college profiles identified that one college, McDowell Technical Community College, had leased space in a downtown building in order to adequately offer the space needed for the center. One college, Brunswick Community College, described their center as being located on a major intersection with easy customer access. Customers entered a large foyer area with a children's play center, an employer's office, a clothes closet, a muti-purpose room, staff offices and a resource room. The college described the atmosphere of the center as being casual and inviting. Other colleges described the centers as being on campus in various room assignments, with available career resource centers either as a part of the center or directly connected to the centers. It is noted that all (10 of 10) college centers discussed their available parking and the signage to direct individuals to the centers.

Research Question Two. Are there any significant differences in the customer satisfaction rankings for **staff services** between the two data sets? Yes, the statistical test for this research question showed a significant difference in the staff services between the community colleges and the ESC. The frequency distributions for Part B (Staff) of the survey as shown on Table 4.14 and Table 4.15 indicated that the community college responses (82.2% or 795) are more than 34.9% higher the percentage than the ESC responses (47.3% or 1797) in the Excellent category. Table 4.18 showed the two-sample t-test data for Part B (Staff)

of the survey. The t-test result statistics for a two sample test for Part B of the survey questions (QB1-R - QB4-R) revealed that for unequal variances the t-test showed t = 19.085 with 4762 degrees of freedom (*df*), and has an associated probability (sig.{2-tailed}) of $p < 0.05$. For equal variance the t-test showed t = 26.925 with 2884.168 degrees of freedom (*df*) and has an associated probability (sig. {2-sided}) of $p < 0.05$ level of significance

The questions asked in Part B of the survey related to the responsiveness of the staff providing the services. Respondents were asked to rank the staff services on questions such as: how quickly you were served; how friendly the staff was to you; how respectful/polite the staff was to you; and on how well the staff helped provide you with the services. The community college profiles provided valuable insight into the possible differences in the scores for this particular category. One of the questions that the colleges were asked to answer related to the time it took a customer to get service from the moment they walked into the center. All college profiles (10 of 10) indicated that the wait time was virtually less than one minute. The college responses included the following comments: customers are greeted by someone within thirty seconds of entering the center; customers are greeted and welcomed immediately – a customer rarely waits longer than a minute to begin receiving services; less than one minute; virtually no wait time - we have staff on duty to see first time customers and two customer service staff to assist with the walk-in traffic. All college profiles (10 of

10) responses indicated virtually a "no-wait" policy, in other words customers are seen almost immediately.

Another explanation for the significance in this particular portion of the survey might be contributed to the role that student services plays in the JobLink Career Centers hosted on the college campuses. For the most part, student service centers are integrated into the community college JobLink Career Centers. Because they have expertise in counseling and guidance and see students on an every day basis, they bring a different customer-focused perspective to the JobLink Centers.

Research Question Three. Are there any significant differences in the customer satisfaction rankings for **services** between the two data sets? Yes, the statistical test for Part C (Staff) of the survey as depicted in Table 4.25 showed that there is a significant difference in the services between the community colleges and the ESC. The t-test result statistics for a two sample test for Part C of the survey questions (QC1-R - QC4-R) revealed that for unequal variances the t-test showed $t = 16.112$ with 4718 degrees of freedom (*df*), and has an associated probability (sig.{2-tailed}) of $p < 0.05$. For equal variance the t-test showed $t = 20.119$ with 2098.036 degrees of freedom (*df*) and has an associated probability (sig. {2-sided}) of $p < 0.05$ level of significance. The frequency distributions for this research question are listed in Tables 4.21 and 4.22. To summarize the distributions again, the community college responses revealed a 63.2% (600) in the Excellent category and the ESC responses revealed a 35.8%

(1350) total responses in this category. The percentage of the community college responses in the Excellent category were almost double the ESC responses. The mean score for the community colleges was 2.41 and the ESC mean was 2.89. A mean closer to a two (2) indicates the Excellent category. The median response from community colleges in this grouping of questions yielded a two (2 or Excellent), while the ESC median score was a three (3 or Good). The mode reflected the same distribution as the median scores respectively.

The series of questions posed under Part C of the survey asked the respondents to rate the following questions: How easy it was to get the services they needed; how long it took; how well the services were provided; and how helpful the information was. This question also related to whether a particular service provided by a particular provider was available at the time the customer visited the center. The community college profiles asked the colleges to supply information on partner participation in the centers. Most college profiles indicated that partner agencies did participate in staffing the centers. However, the MDC, Inc. report issued in 2000, mentioned earlier in Chapter Two, provided additional information about partner participation at community college sites. The report analyzed the partner participation for the JobLink Career Centers visited during the report period. It was noted that community college sites and independent sites had greater partner participation in the staffing of the centers at community colleges and independent sites as compared to the partners staffing the ESC center sites. Table 2.11 illustrated that at the community college

sites reviewed by MDC, Inc., the community college partners and WIA partners had full-time participation in the sites, while 63% had full time-time Department of Social Services (DSS) representation, and 37% had full-time ESC participation. Table 2.12 illustrated the opposite scenario for ESC hosted sites, in that 92% of the ESC sites had full- time ESC participation, but only 46% had full-time WIA participation, 15% had full-time community college participation, and only 15% had full-time particpation from DSS (MDC, Inc., 2000). Lack of partner representation on-site at ESC hosted JobLink Career Centers contributed to the higher ratings in this category for community colleges.

Research Question Four. Are there any significant differences in the **self service facilities** between the two data sets? Yes, there is a significant difference in customer satisfaction rankings in the self service facilities between the two sets of respondents - ESC and community colleges. This section asked survey respondents to rate questions about the use of the self-service facilities such as: How easy the equipment was to use; how easy it was to get the information; how helpful the information was; and the length of time waited to use the resources. The survey also asked two questions that related to the staff's availability to help, and the staff's knowledge of the resources. It should be noted that the survey asked the respondents that if they did not use the self-service facilities to skip to Part E of the survey. It should also be noted that 23.5% (1150) of the responses from ESC and 18.4% (180) of the responses from community colleges did not answer the questions posed under Part D of the survey. One may assume, from

the non responses in this section of the survey, that those individuals did not use the self-service facilities at the centers. This may be explained in several ways. Individuals coming to the colleges may be requesting more assistance from the counseling and support staff rather than merely relying solely on the use of the resources in the center.

Table 4.28 and Table 4.29 listed the frequency distributions for this section of the survey responses. The tables showed that ESC respondents indicated a 45.0% (1432) rating of Excellent, with 44.1% (1405) rating this service as Good. The community colleges' responses rated 71.0% (530) Excellent, with a 26.8% (200) Good in this section of the survey. Table 4.31 identified that the ESC data mean score was 2.68 and the community college data mean score was 2.31, with a median score of 3.0 for ESC and a median rank of 2.0 for community colleges. Both agencies had a mode of 2.0. Table 4.32 listed the t-test result statistics for a two sample test for Part D of the survey questions (QD1-R – QD6-R) revealed that for unequal variances the t-test showed $t = 13.011$ with 3927 degrees of freedom (*df*), and has an associated probability (sig.{2-tailed}) of $p < 0.05$. For equal variance the t-test showed $t = 15.957$ with 1512.226 degrees of freedom (df) and has an associated probability (sig. {2- sided}) of $p < 0.05$ level of significance.

The community college profiles revealed additional information that perhaps can be used to explain the differences in the mean scores for this cluster of questions. The self-service questions in this survey related to the use of the resource room, which is a key component of the JobLink Career Centers. Listed

below are excerpts from some of the college profiles that described the resource room at their respective JobLink Career Centers.

Southeastern Community College

The Career Resource Room has a vast array of job search, career exploration and college information in a variety of formats. Materials have been purchased so that customers can read, watch and hear information. Printed materials, resource books and videos can also be borrowed for use at home if a customer wishes. A list of all resources is available for customers. Computers, TV/VCR, 2 typewriters and a printer are available. A Vocational Rehabilitation engineer has examined the center for handicapped accessibility. Four large work tables and a dozen chairs take up most of the space. A person is available in the resource room full-time. The HRD instructor also assists occasionally.

Coastal Carolina Community College

We have a full-time Coastal Carolina staff person in the Resource center at all times. Partners, student interns, and other community college staff rotate to ensure at least 2 people are available for customers at all times.

Blue Ridge Community College

The Career Resource Room includes:

-A self paced Employability Lab with computer software and videos for improving customers' job seeking skills

-DISCOVER, ACT's computerized career information system

-ESC's website book marked on all computers

-Listings of internet job search web sites

-Comprehensive, up-to-date collection of two and four year college catalogs

-Comprehensive collection of books on career planning, career information, resume and cover letter writing, job seeking skills, job interview techniques.

-JobLink Job Listings

-ESC Labor Market Information .

Brunswick Community College

Currently, there is one full time Brunswick Community College staff person in the resource room with assistance from partner agency staff. Partner agency and community college staff are cross-trained to assist when needed. Career Exploration and employability skill materials are available in hard copy, video, audio and on the Internet. Three video monitors, 8 computer stations, a fax machine, telephones, typewriter, copier, and printers are available for use by customers.

Johnston Community College

The resource room is spacious and was designed for easy traffic flow. Eight computers are available for customer use and three are provided for staff who are working in the resource area. Two of the computers available for customer use do not have Internet access, but do have various types of software and tutorials. Two of the computers which are connected to the Internet also have JAWS and Lunar software for persons who are visually impaired. A TTY device is also available for persons who are hearing impaired. A wide variety of

resource materials are available and include books, pamphlets, CD-ROMs, and video tapes. Job order notebooks, newspapers, and job applications are available to customers. A web site has been developed to make job search easier for customers. A resource and referral booklet is available for customers who may have needs that are not provided by the Center or partner agencies who provide services in the Center. Three staff members are assigned to the resource area on a rotating basis. One serves as a "greeter" and the other two provide assistance to Center customers. In addition to the "core services" provided in the Center and the services provided by partner agencies, child care resource and referral services and consumer credit counseling services are available. The college provides three staff members to work in the Center on a part-time basis (one HRD, one Child Care Resource and Referral staff and one JobReady staff person). Primary staffing and responsibility for day to day operations of the Center are provided by the Johnston County Job Training Office (service providers for Title I WIA Adult and Dislocated Worker programs). Twelve agencies partner together to staff the Center.

Another question that was asked of the colleges in the profiles was to describe how they know if a person needs the self-service facilities. One college responded quite simply by stating that the Center staff asked the customer at the time they entered the center, whether they wanted staff-assistance or if they preferred self-service. Most colleges (eight of ten) reported that the various

service levels are explained during the initial orientation and are also covered in the written orientation information with the customers.

Research Question Five. Are there any significant differences in the **overall rating of services** between the two data sets? Yes, the data revealed that there were significant differences in the customer satisfaction overall rankings of services between community colleges and ESC concerning customers overall opinions of the services they received at JobLink Career Centers. This question asked the survey respondents to rate their overall experience with the services received. As Table 4.34 illustrated, the frequency distributions for this question for the ESC data showed that 48.4% (1690) of the respondents rated the service as Excellent, while 39.0% (1362) of the respondents rated the service as Good. The ESC data also showed that 26.8% (1310) of the respondents did not answer this question, and that 8.7% (303) of the respondents rated the services as Fair, with 2.7% (96) rating the services as Poor. Only a small number of respondents (41 or 1.2%) rated their overall service as Not Acceptable.

This contrasted with the community college data, where 78.9% (564) rated their overall experience as Excellent, with 20.1% (144) rating their overall experience in the Good category. Community college data also revealed that the respondents did not think the services they received from the colleges were Poor and only one (1.0%) respondent identified that the service was Not Acceptable.

Overall in all five null hypotheses tested in this study the community college JobLink Career Centers customers rated the services they received, in

each part of the survey, higher than the customers of the ESC JobLink Career Centers.

Contributions and Implications

There are several significant contributions of this study. First, it established that there were significant differences in the customer satisfaction ratings between community college JobLink Career Centers and the ESC JobLink Career Centers across the state. Second, this study illustrated the need to develop continuous process improvement measures to increase the customer satisfaction ratings. Third, this study reinforced the concept that the state should engage in a methodology to deliver training services to the JobLink Career Centers across the state to improve the customer satisfaction ratings of services received at the JobLink Career Centers. Fourth, this study supported the efforts which were originally underway in North Carolina to develop a methodology to deploy the customer satisfaction surveys to all JobLink Career Centers. Fifth, this study identified to the state that the JobLink Chartering Criteria needed to be updated and deployed to all JobLink Career Centers across the state. Six, this research provided additional data to the colleges that participated in this study so that they may use the data to improve their services.

Each one of these contributions were examined and discussed. The first contribution defining the difference in customer satisfaction ratings between the community colleges and the ESC JobLink Career Centers also demonstrated the differing philosophies of the two host agencies. The ESC goals and missions are

simple - to get people back to work, to keep the unemployment insurance at a low rate, to assist in filing claims for unemployment insurance, and to make good employee referrals to employers. In contrast, the community college goals and missions related to lifelong learning, education and training. Customers of a community college Joblink Career Center were offered assessments, counseling, guidance, testing, and training.

The second contribution that this study made was to recognize the need to introduce continuous process improvement strategies to the JobLink Career Centers. Ideally, there should not be any difference in hosting agencies of the JobLink Career Centers. The ideal would be for each center to rate high in all customer satisfaction measures. If there were a set of standards to be delivered, then all centers should be delivering those standards the same way. The JobLink Career Center logo should be used as a "branding" device so that customers are able to enter any JobLink Career Center across the state and the same set of high quality services are available and provided.

The third contribution that this study made was to reinforce the notion that the state should engage in a methodology to deliver training services to the staff of JobLink Career Centers across the state to improve the customer satisfaction ratings of services received at the JobLink Career Centers. While some training efforts have occurred in North Carolina for the staff of the JobLink Career Centers, significant further training needs to occur in the area of customer satisfaction. The Workforce Investment Act was clear its language and intent

that the One-Stop centers were customer-driven, user-focused, high-quality centers that provided a broad array of employment and training services. Local staff must be well-trained in order to deliver high quality, appropriate and effective services. Local JobLink Career Center staff should be trained as Career Development Facilitators; this includes all JobLink staff, not just a select few. In order to increase customer satisfaction, one must recognize and assess the needs of the customers. By illustrating that there is a range of customers' responses in this customer satisfaction study, it demonstrated to the state that not all center partners have been trained to offer high-quality services and to adequately assess the needs of the customers.

The fourth contribution that this study made was to support the efforts which were originally underway in North Carolina to develop a methodology to deploy the customer satisfaction surveys to all JobLink Career Centers. While the ESC had administered and gathered customer satisfaction surveys, and this study collected data from ten colleges concerning customer satisfaction; the other twenty community colleges that are JobLink Career Centers, the other ESC Centers that did not participate in the previous survey and the other independent sites have not been using a standardized format in which to collect data. The state is required to develop a comprehensive sytem to collect and analyze customer satisfaction data. Recently, the Division of Employment and Training, (the state administrative entity for the WIA) issued a request for proposal and contracted to a private company to collect customer satisfaction

data from customers of the JobLink Career Center system. It appears that in the future there will be a system-wide approach to the collection of customer satisfaction data. Therefore, the contribution made by this study may not be as significant as originally thought.

The fifth contribution that this study made was to identify to the state that the JobLink Chartering Criteria needed to be upgraded and deployed to all JobLink Career Centers across the state. Each JobLink Career Center is required by the Commission on Workforce Development and their local workforce development boards to have a chartering criteria in place for each center. This criteria is referenced earlier in Chapter Two of this study. The chartering criteria has not been updated since its original inception in 1996. In order to provide high-quality services, an on-going process of ratching up the levels of services needed to be implemented. Chartering encourages high quality service delivery through a statement of goals, standards, and expected outcomes. A charter is a local board's guarantee to the community that a center is committed to quality processes, continuous improvement, and outstanding performance. Appendices to the charter would include a business plan and a memorandum of understanding executed by partner agencies participating in the local JobLink Career Center(s).

Finally, the sixth contribution that this study made was to share the survey response data with the ten community colleges that participated in collecting the data. This contribution was probably the most significant one,

since the colleges have already agreed to use the data to identify their strengths, and weaknesses, and to make improvements in their systems to reflect comments from the customers that they serve.

Recommendations for Future Research

There are several recommendations that warrant further research. First, the most important area that this study recognized for further research is to gauge the relationship between the customer's opinions and the importance of the questions being asked of the customer. The survey used for this study asked respondents to rank certain questions concerning services they received at JobLink Career Centers. In addition to a ranking of the services they received, the survey asked the customers to identify whether the service was important or not important to them. In Chapter Three of this study, one of the limitations identified was that this research was going to focus only on the rankings of services and not the customers opinions of how important these services were to the customer. The researcher acknowledged that there is a relationship between customer satisfaction and customer importance, which denotes customer preference (Hayes, 1992). However, this study focused on the customer satisfaction portion of the survey and did not analyze the data as to the customer importance rankings.

Second, replicate the survey for JobLink Career Centers that are hosted by other entities. This data may be interesting in determining a pattern of how

JobLink Career Centers "grow" their own environment when not influenced by agency practices or philosophies.

Third, revise the survey instrument to gauge customer's expectations in order to identify an increase or decrease in expectations. Chapter Two contained a discussion on customers expectations and Table 2.1 and Table 2.2 described the customer satisfaction measures that can be employed in a new survey design. Osbourne & Gaebler, 1992 identified that in order to gauge customer satisfaction, you must first understand and know what the customer's expectations are. This is also true for customer satisfaction. The survey questions could be revised to capture independent expectations from the customers.

Summary

This final chapter provided a discussion on the contributions and implications of this research study as well as to suggest future areas of study. This study began with an overview of the workforce development practices and policies in North Carolina, a review of the Workforce Investment Act which allowed the states to establish a One-Stop environment, a review of the community college structure and delivery system including a discussion on the role of student services, and a review of customer satisfaction measures and its importance in the operation and continuous improvements to the One-Stop environment in North Carolina. Literature relative to these discussions were presented which supported the notion of improved customer service in governmental organizations. The specfic problem to be resolved in this study

was to determine if there were any differences in customers opinions of services between the community college hosted JobLink Career Centers and those JobLink Career Centers hosted by the ESC. To that end, the study made six major contributions: 1) it established that there were significant differences in the customer satisfaction ratings between community college JobLink Career Centers and the ESC JobLink Career Centers across the state; 2) it identified the need to develop continuous process improvement measures to increase the customer satisfaction ratings; 3) it reinforced the notion that the state should engage in a methodology to deliver training services to the JobLink Career Centers across the state to improve the customer satisfaction ratings of services received at the JobLink Career Centers; 4) it supported the efforts which were originally underway in North Carolina to develop a methodology to deploy the customer satisfaction surveys to all JobLink Career Centers; 5) it identified to the state that the JobLink Chartering Criteria needs to be updated and deployed to all JobLink Career Centers across the state, which may increase customer satisfaction ratings with the services; and 6) it provided additional data to the colleges that participated in this study so that they may use the data to improve their services. Suggestions were made for future research which will further substantiate the credibility, reliability and validity of the findings of this study.

Continued efforts to provide high-quality, user-friendly, JobLink Career Centers across the state will improve customer satisfaction ratings with the services received through the workforce delivery system in North Carolina.

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APPENDICES

Appendix A: Survey Instrument

North Carolina Community College System/JobLink Career Center
Customer Satisfaction Survey

Your opinion is important to us. Please read each statement below and give us your opinion **by checking one box in the RATING SECTION,** and then tell us how important each item is to you **by checking one box in the IMPORTANCE SECTION.** **PLEASE BE SURE THAT YOU SELECT TWO BOXES FOR EACH STATEMENT.** If a statement does not apply, please indicate that by checking the **DOES NOT APPLY** box and then go on to the next statement. Please complete the survey at your earliest convenience and return it in the JobLink Career Center staff. Thank you.

_____
(Community College/Job Link Career Center)

	Rating (Check One)						AND	Importance (Check One)		
	Does Not Apply	Excellent	Good	Fair	Poor	Not Acceptable		Very Important	Important	Not Important
PART A: FACILITIES		**A**	**B**	**C**	**D**	**E**		**1**	**2**	**3**
Please rate the center on the following items:										
1. How the center looked. . .	☐	☐	☐	☐	☐	☐		☐	☐	☐
2. Whether the center offered you enough privacy so you could speak freely with our staff. . .	☐	☐	☐	☐	☐	☐		☐	☐	☐
3. How convenient the center's hours were for you. . .	☐	☐	☐	☐	☐	☐		☐	☐	☐
4. How convenient the location of the center was for you...	☐	☐	☐	☐	☐	☐		☐	☐	☐
5. How easy it was to find and get to the services you needed in the building. . .	☐	☐	☐	☐	☐	☐		☐	☐	☐
PART B: STAFF										
Please rate the staff who served you on the following items:										
1. How quickly you were served . . .	☐	☐	☐	☐	☐	☐		☐	☐	☐
2. How friendly the staff was to you. . .	☐	☐	☐	☐	☐	☐		☐	☐	☐
3. How respectful/polite the staff was to you. . .	☐	☐	☐	☐	☐	☐		☐	☐	☐
4. How well the staff helped provide the information or services you needed. . .	☐	☐	☐	☐	☐	☐		☐	☐	☐
PART C: SERVICES										
Please rate the services you received on...										
1. How easy it was to get the services you needed. . .	☐	☐	☐	☐	☐	☐		☐	☐	☐
2. How long it took to receive the services you needed. . .	☐	☐	☐	☐	☐	☐		☐	☐	☐
3. How well the services provided met your needs. . .	☐	☐	☐	☐	☐	☐		☐	☐	☐
4. How helpful the information provided was to you. . .	☐	☐	☐	☐	☐	☐		☐	☐	☐

NORTH CAROLINA COMMUNITY COLLEGE SYSTEM/JOBLINK CAREER CENTER
CUSTOMER SATISFACTION SURVEY

	Rating (Check One)						AND	Importance (Check One)		
	Does Not Apply	Excellent	Good	Fair	Poor	Not Acceptable		Very Important	Important	Not Important
PART D: SELF –SERVICE FACILITIES *(If you did not use self-service facilities – skip to* **PART E.***)*		A	B	C	D	E		1	2	3
Please rate our self-service facilities including access to the Internet on…										
1. How easy equipment and materials were to use…	☐	☐	☐	☐	☐	☐		☐	☐	☐
2. How easy it was to get the information you needed...	☐	☐	☐	☐	☐	☐		☐	☐	☐
3. How helpful the information was to you…	☐	☐	☐	☐	☐	☐		☐	☐	☐
4. The length of time you waited to use the resources and/or materials. . .	☐	☐	☐	☐	☐	☐		☐	☐	☐
If you required staff assistance while using our self-service facilities, please rate us on the...										
1. Staff being available to help you…	☐	☐	☐	☐	☐	☐		☐	☐	☐
2. Staff's knowledge of resources…	☐	☐	☐	☐	☐	☐		☐	☐	☐
PART E: OVERALL RATING OF SERVICE(S)										
Please rate your overall experience with our services…	☐	☐	☐	☐	☐	☐		☐	☐	☐

PART F: DEMOGRAPHICS ***(Please check the appropriate boxes)***

1. Gender: ☐ Male ☐ Female
2. Age: ☐ 19-20 ☐ 21-30 ☐ 31-40 ☐ 41-50 ☐ over 51
3. Race:
   - ☐ White ☐ African-American
   - ☐ Hispanic ☐ Asian
   - ☐ American Indian ☐ Other (*Please describe*) _____
4. Education status: *(Please check the highest education attainment)*
   - ☐ less than high school ☐ 2-year college degree
   - ☐ high school or GED ☐ 4-year bachelor's degree
   - ☐ other (*Please describe*)
5. How many times have you visited the JobLink Career Center?
   - ☐ 1st time ☐ 11-15
   - ☐ 1-5 ☐ 16-20
   - ☐ 6-10 ☐ Other (*Please list the number*)
6. Are you currently:
   - ☐ unemployed, looking for career or training information
   - ☐ employed, looking for career or training information
   - ☐ other (please describe) _____

PART G: COMMENTS ***(Please record any comments regarding our services)***

_____

_____

_____

Thank You

Appendix B: Economic Development Board Workforce Goals

Retooling the Existing Workforce and Supporting North Carolina Business and Industry

Goal 1. Improve and Expand the Delivery of Literacy Services to Adults in North Carolina.

Recommendation 1. Develop strong partnerships to address local needs and market literacy services.

Recommendation 2. Improve the quality of services offered by improving assessment of learner outcomes and evaluation of program results and by increasing the use of work-based/contextual learning strategies.

Recommendation 3. Implement innovative technology-based learning strategies.

Recommendation 4. Continue support for the NC Literacy Resource Center.

Goal 2. Expand Flexible, Non-Degree Based Training Programs to Support Workers and Employers.

Recommendation 1. Establish funding parity between the FTE funding rate for the Community College's Extension and Curriculum programs and support efforts to revise the Community College funding formula.

Recommendation 2. Remove regulatory barriers to In-Plant training.

Recommendation 3. Increase funding for customized training programs offered through the Community College System.

Recommendation 4. Develop open entry/exit education and training opportunities.

Recommendation 5. Monitor the impact of incentives on business investment in worker training.

Goal 3. Expand Access and Availability of Employer-Based Apprenticeship Programs.

Recommendation 1. Increase funding for Registered Apprenticeship Programs.

Recommendation 2. Improve coordination between youth and adult apprenticeship programs.

Recommendation 3. Increase employer involvement in apprenticeship programs.

Goal 4. Ensure that the Work First Welfare Reform Initiative Improves Skills and Employment of the Welfare Population.

Recommendation 1. Develop collaborative training and placement strategies in partnership with business and industry.

Recommendation 2. Explore the possibility of extending transitional health care and childcare benefits for longer than twelve months.

Recommendation 3. Expand Smart Start and other child care/child development opportunities for welfare recipients and the working poor.

Recommendation 4. Continue to develop innovative transportation strategies to limit barriers to employment and training.

Preparing the Emerging Workforce

Goal 5. Build on the Success of JobReady by Expanding the System and Developing Key Components of the School-to-Work Approach.

Recommendation 1. Provide career development information and opportunities for all students.

Recommendation 2. Increase the number of work-based learning opportunities for students.

Recommendation 3. Expand the Job Ready system to elementary and middle schools.

Recommendation 4. Increase the involvement of four-year universities in the Job Ready initiative.

Recommendation 5. Ensure that Job Ready stakeholders receive the professional development necessary to implement Job Ready.

Recommendation 6. Work with education entities and Job Ready partnerships to increase the availability of courses using integrated curriculum.

Recommendation 7. Improve coordination between Job Ready Partnerships, Workforce Development Boards, and JobLink Career Centers.

Recommendation 8. Develop an automated management information system that will facilitate the evaluation of all high school programs.

Goal 6. Support Education Reform Efforts in the K-12 Education System to Improve Student Achievement.

Recommendation 1. Strengthen teacher certification and raise teacher pay to the national average.

Recommendation 2. Decrease class size in grades K-12.

Recommendation 3. Support the efforts of the State Board of Education to implement the ABC Plan (an education reform initiative focused on accountability, basics and local control).

Recommendation 4. Integrate the assessment approach of the NC Education Standards and Accountability Commission with JobReady.

Recommendation 5. Encourage educational curriculum that addresses the global economy.

Building the System Infrastructure

Goal 7. Expand JobLink Career Centers Across the State to Deliver Quality Services to Employers as well as Job and Training Seekers in a One-Stop Environment.

Recommendation 1. Develop full-service JobLink Career Centers across the state.

Recommendation 2. Develop and implement an integrated and management information system.

Recommendation 3. Provide additional technical assistance to Workforce Development Boards.

Recommendation 4. Expand chartering requirements to include performance standards for the JobLink Career Centers.

Recommendation 5. Develop stronger linkages with Job Ready.

Goal 8. Continue to Develop a Comprehensive Performance Management System.

Recommendation 1. Refine and test the labor market measures approved by the Commission.

Recommendation 2. Support continued State funding for the Inter-Agency Follow-Up System, managed by the Employment Security Commission.

Recommendation 3. Develop strategies to measure the return on investment for the workforce system.

Recommendation 4. Coordinate performance management efforts with the Performance Based Budgeting effort, the NC Progress Board, and the Economic Development Board.

Goal 9. Expand Statewide Access to Technology to Improve Service Ability and Accountability.

Recommendation 1. Improve staff and customer access to automated tools.

Recommendation 2. Improve coordination and communication among workforce agencies developing management information systems and user applications.

Goal 10. Establish an Employer-Led System of Skill Standards to Certify That Workers Have Technical Skills.

Recommendation 1. Create a North Carolina Skill Standards Board.

Recommendation 2. Validate and implement skill standards for the metals manufacturing industry.

Recommendation 3. Identify other industries in which skill standards will be developed.

Recommendation 4. Establish industry councils to create skill standards.

Goal 11. Increase and Strengthen Business Leadership and Involvement in Workforce Development Programs.

Recommendation 1. Strengthen business-represented local workforce governance structures.

Recommendation 2. Strengthen coordination of economic development and workforce development activities.

Recommendation 3. Increase business participation in workforce development activities for the existing and emerging workforce.

Appendix C: Commission on Workforce Development Goals

Goal 2: Highly Qualified Workers

Goal 2: Highly Qualified Workers - Achieve higher wages for North Carolinians and develop a high caliber workforce that will bolster North Carolina's economic development.

Objective 1: Improve and expand the delivery of literacy services to North Carolina's workforce.

Strategy 1: Develop strong local literacy partnerships to address needs and market literacy services.

Objective 2: Expand flexible, non-degree based training programs to support workers and employers.

Strategy 1: Increase access and availability of job training programs.

Strategy 2: Bring funding parity between Occupational Extension, Basic Skills and Curriculum Courses and adjust the FTE funding formula to reflect the cost of equipment.

Strategy 3: Increase funding for Customized Training Programs.

Strategy 4: Modernize the technology and equipment used in Community College training programs.

Strategy 5: Develop Specialized Training Centers for high-growth industries.

Objective 3: Reconnect welfare recipients and dislocated workers to the workforce.

Strategy 1: Study the dislocated worker population and devise needed training programs.

Strategy 2: Provide strategic training and placement services to the welfare population.

Strategy 3: Broaden private sector and community support for Work First.

Objective 4: Improve the basic and technical skills of the emerging workforce.

Strategy 1: Identify and reallocate current state funding sources to support the Job Ready Initiative.

Strategy 2: Request that the State Board of Education adopt policies in support of Job Ready.

Appendix D: Comparison Chart of Student Development Activities to JobLink Career Center Activities

I. FUNCTION: PREPARATION FOR ACADEMIC SUCCESS	**I. FUNCTION: CORE AND INTENSIVE SERVICES**
Admissions Counseling Helping perspective student with decision to enroll and making him or her comfortable with the enrollment process.	*Enrollment Counseling* Helping customers to determine eligibility for receipt of WIA funds and services.
Career/educational counseling Assisting the prospective and enrolled student in finding the option match between his or her personal abilities and interest.	*Career/educational counseling* Assisting the customer with matching interests and abilities through assessment testing.
Personal counseling Supporting student by addressing personal, emotional and family.	*Personal counseling* Provides personal counseling to assist with other issues such as transportation or child care problems. Provides Human Resources Development training.
Placement testing/assessment Appropriate assessment information for determining best match.	*Placement testing/assessment* Provides appropriate assessment to match skills with labor market needs or individual interests with appropriate training.
II. FUNCTION: SUPPORT SERVICES FOR ENROLLED STUDENTS	**II. FUNCTION: INTENSIVE SERVICES/CASE MANAGEMENT**
Academic advisement Working with faculty and students to ensure proper placement.	*Advisement* Working with other agencies to provide adequate assistance for customers.

Promoting good study skills
Making available to students workshops, seminars and self-paced materials.

Developmental courses/workshops
Conducting developmental courses in reading, math, and English.

Monitoring academic progress
Informing students and faculty of academic progress.

Student activities
Enhancing leadership and social development through clubs.

Financial aid
Developing resources, matching resources with student's needs, managing the system for the student.

Veterans services
Coordinating admission process of veterans to ensure eligibility and financial payments.

Orientation to college
Making student familiar with institution by providing, organizing and carrying out orientation.

Promoting good work skills
Making available to customers workshops, seminars and self-paced materials. Offers HRD classes.

Development of courses

Provides funding for development of courses in preparation for curriculum enrollment.

Monitoring progress
Monitors academic and employment progress of customers through case management.

Student activities
Engages customers in Job clubs, group counseling.

Financial aid
Works with training providers financial aid offices to match resources with customers needs. Allocates WIA resources for customers needs

Veterans services
Coordinates veterans services with veterans representative of ESC partner agency to enhance services to customers.

Orientation to JobLink
Making customer familiar with services available, resource center, self-paced activities and more in-depth tests, assessments and counseling.

Services to students with special needs Developing special services for handicapped, disadvantaged, *etc.*	*Services to customers with special needs* Accessing partner agency services to assist customers.
Transitional services to high school students Coordinating with high school teachers to help transition students.	*Transitional services* Coordinates with high schools to provide world-of-work orientation and to let customers know of the youth services available.
Health services Educating students and carrying out health policies to ensure wellness.	*Health services* Access Department of Social Services for assistance.
Tutoring program Promoting and facilitating academic tutoring.	*Tutoring program* Arranges for special services to customers through case management.
Cooperative education Participating in the cooperation education program and providing practical and real-life experiences to students.	*Cooperative Education* Provides OJT and work experience opportunities for youth and adults.
Housing and transportation Serving as a clearinghouse, resource or agency for housing and/or transportation needs.	*Housing and Transportation* Serving as a clearinghouse, resource or agency for housing and/or transportation needs.
III. FUNCTION: ENROLLMENT MANAGEMENT	**III. FUNCTION: ENROLLMENT MANAGEMENT**
Recruitment Working with faculty and students to ensure proper	*Recruitment* Working with employers and community for recruitment.

placement.

Retention
Developing strategies and coordinating involvement that promote student success.

Marketing and public relations
Assisting in the design and implementation of information strategies that promote the college's mission.

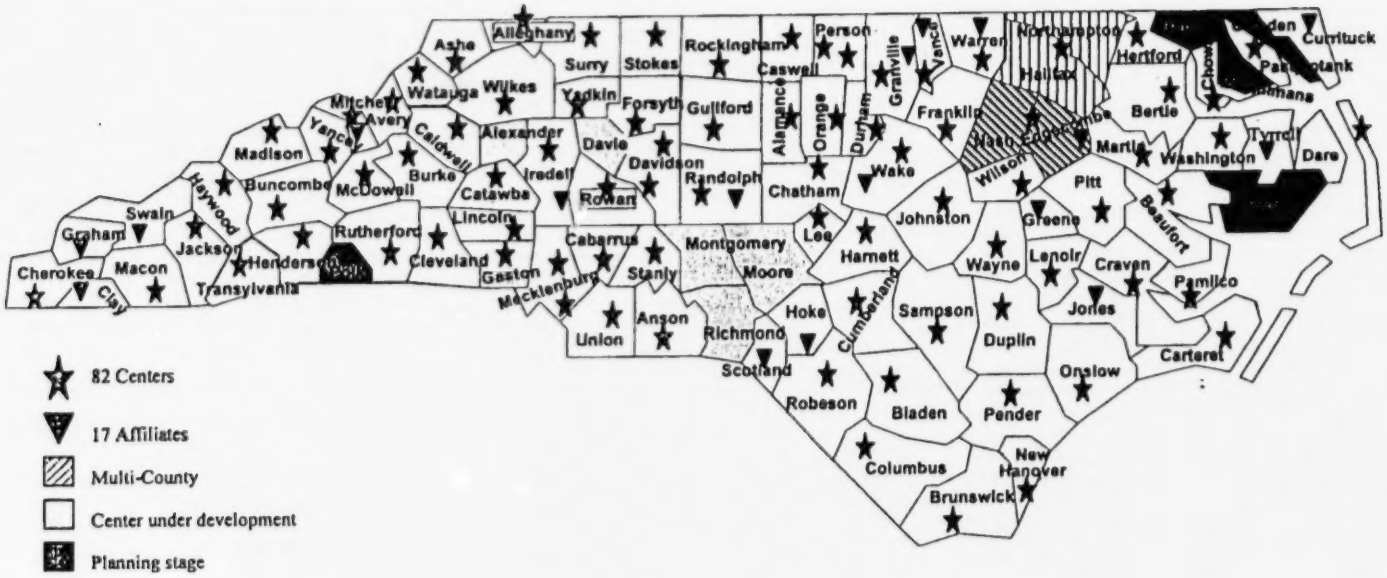
IV. FUNCTION: ADMINISTRATIVE SERVICES
Effective and efficient administrative services are essential to student success and to college accountability and management.

Retention
Follows progress of customer in training or placed on job.

Marketing and public relations
Assisting in the design and implementation of information strategies that promote the college's mission.

IV. FUNCTION: ADMINISTRATIVE SERVICES
Effective and efficient administrative services are essential to student success and to colleges accountability and management

Appendix E: Map of JobLink Career Centers in North Carolina



JobLink Career Centers and Affiliate Sites

99 Centers and Affiliates

N.C. Department of Commerce

Commission on Workforce Development

April 4, 2001

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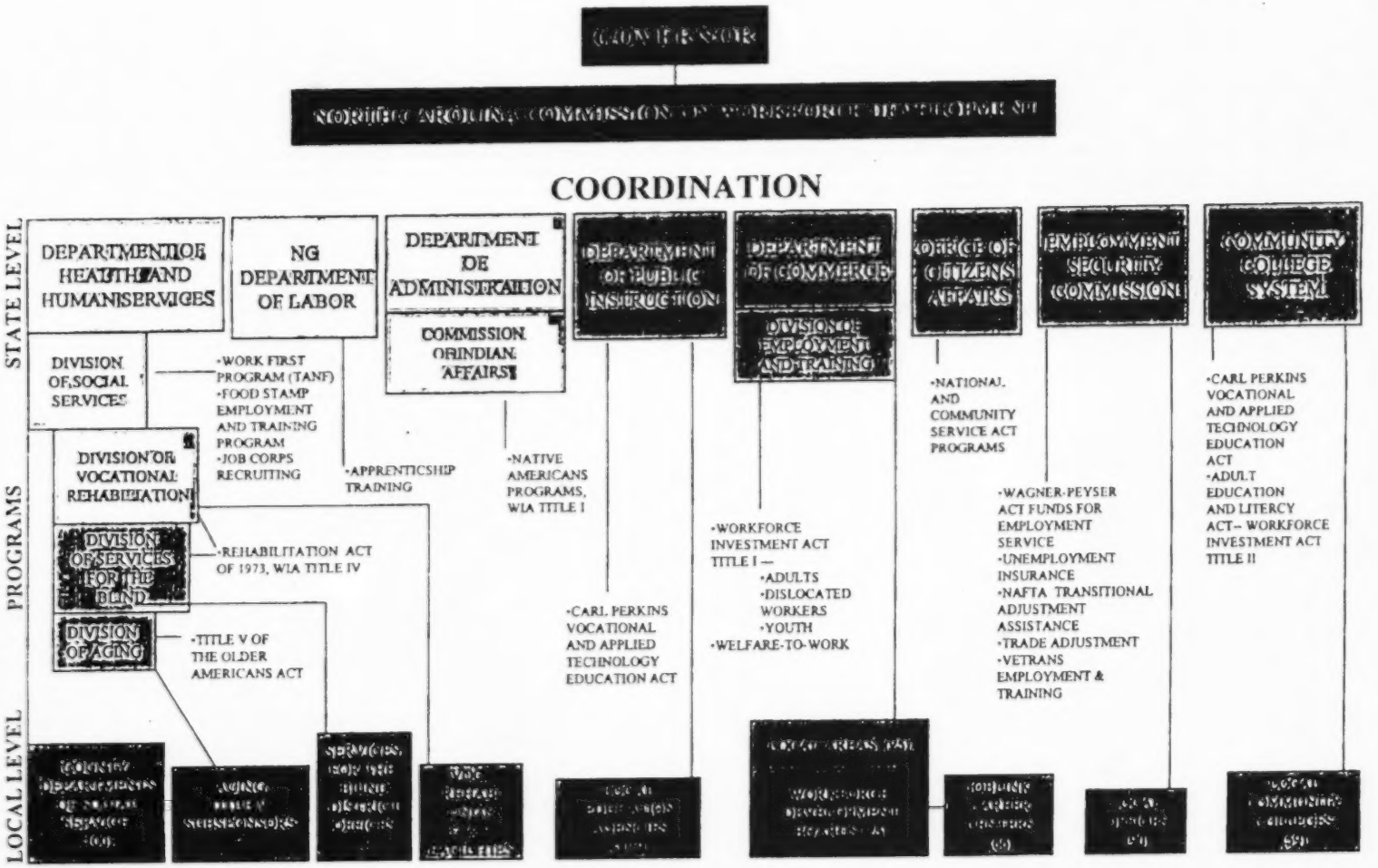
Appendix F: Workforce Development Programs by State Agency

North Carolina
November 1, 1999

WORKFORCE DEVELOPMENT PROGRAMS BY STATE AGENCY
(FEDERALLY FUNDED PROGRAMS)


GOVERNOR
NORTH CAROLINA COMMISSION ON WORKFORCE DEVELOPMENT
COORDINATION
STATE LEVEL
PROGRAMS
LOCAL LEVEL
DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF SOCIAL SERVICES
DIVISION OF VOCATIONAL REHABILITATION
DIVISION OF SERVICES FOR THE BLIND
DIVISION OF AGING
NC DEPARTMENT OF LABOR
DEPARTMENT OF ADMINISTRATION
COMMISSION ON INDIAN AFFAIRS
DEPARTMENT OF PUBLIC INSTRUCTION
DEPARTMENT OF COMMERCE
DIVISION OF EMPLOYMENT AND TRAINING
OFFICE OF CITIZENS AFFAIRS
EMPLOYMENT SECURITY COMMISSION
COMMUNITY COLLEGE SYSTEM
•WORK FIRST PROGRAM (TANF)
•FOOD STAMP EMPLOYMENT AND TRAINING PROGRAM
•JOB CORPS RECRUITING
•REHABILITATION ACT OF 1973, WIA TITLE IV
•TITLE V OF THE OLDER AMERICANS ACT
•APPRENTICESHIP TRAINING
•NATIVE AMERICANS PROGRAMS, WIA TITLE I
•CARL PERKINS VOCATIONAL AND APPLIED TECHNOLOGY EDUCATION ACT
•WORKFORCE INVESTMENT ACT TITLE I —
•ADULTS
•DISLOCATED WORKERS
•YOUTH
•WELFARE-TO-WORK
•NATIONAL AND COMMUNITY SERVICE ACT PROGRAMS
•WAGNER-PEYSER ACT FUNDS FOR EMPLOYMENT SERVICE
•UNEMPLOYMENT INSURANCE
•NAFTA TRANSITIONAL ADJUSTMENT ASSISTANCE
•TRADE ADJUSTMENT
•VETRANS EMPLOYMENT & TRAINING
•CARL PERKINS VOCATIONAL AND APPLIED TECHNOLOGY EDUCATION ACT
•ADULT EDUCATION AND LITERCY ACT– WORKFORCE INVESTMENT ACT TITLE II

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Appendix G: North Carolina JobLink Career Centers Partner Agencies and Programs

JobLink Career Centers

Agencies and Programs

Department of Commerce
- Employment Security Commission
  - Employment Services
  - Veterans Employment Services
  - Unemployment Insurance
  - Trade Adjustment Assistance and NAFTA Transitional Adjustment Assistance
  - Labor Market Information *(on-site)*
- Division of Employment and Training
- Workforce Investment Act
  - Title I Services
    - Adult
    - Dislocated Worker
    - Youth
- NC Employment and Training Grant Program
- Welfare-to-Work Program *(on-site)*

Department of Health and Human Services
- Division of Social Services (State/County Departments)
  - Work First Employment
  - Food Stamp Employment and Training*(on-site)*
- Division of Aging
  - Senior Employment Program *(on-site)*
- Division of Vocational Rehabilitation
  - Vocational Rehabilitation Services *(on-site)*
- Division of Services For the Blind
  - Placement Services *(on-site)*

Core Services: Job Seekers
- Eligibility Determination
- Sponsorship
- Career Information
- Labor Market Information
- Job Placement
- Work Registration
- Unemployment Insurance
  - Information
  - Filing of Claims
- Training Information
- Assessment
- Resume Preparation

Core Services: Employers
- Recruitment Assistance
- Training Information
- Tax Credits and Hiring Incentive Information
- Labor Market Information
- Outreach
- Single Point for filing and filling Job Orders
- Rapid Response to Plant Closings and Mass Layoffs

Intensive Services:
- Comprehensive and Specialized Assessments
- Eligibility Determination
- Training Sponsorship
- Career Counseling and Planning
- Group Counseling
- Case Management Services
- Training Information
- Short-term Pre-Vocational Training
- Referral to other partners services
- Individual Employment Plan

Training Services:
- Occupational Skills
- On-the-Job
- Upgrade/Retraining
- Entrepreneurial
- Job Readiness
- Customized
- Combined Workplace
- Adult Education and Literacy combined with Occupational Skills

Agencies and Programs

Community College System
- Vocational and Technical Occupational Training
- Adult Basic Education and Literacy
- Human Resource Development
- Student Financial Aid
- JobReady (School-to-Work) *Linked (joint planning and may be on-site)*

Department of Public Instruction
- JobReady (School-to-Work) *(joint planning and may be on-site)*

Programs in Local Communities where available: (Employment & Training Programs)
- Native American
- National & Community Service Corps
- Migrant and Seasonal farmworkers
- Veterans' Workforce Programs WIA Title I
- Community Service Block Grants
- Housing and Urban Development
- Job Corps *(on-site, linked-joint planning)*

NC Department of Labor
- Apprenticeship *(information & appointments on-site)*

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Appendix H: Letter To Colleges

Community College XX

Dear Community College President:

I am in the final stages of my course work at NC State University and I am working on my dissertation. The topic of my dissertation is Customer Satisfaction: A Comparison of Community College and Employment Security Commission Joblink Career Centers in North Carolina. Ten community colleges have been selected from the twenty-three colleges' that host JobLink Career Centers on campuses, to participate in this study. I am requesting assistance from your JobLink Career Center in gathering data for my research. I have already spoken with the JobLink staff and they have agreed to assist me in this regard. Attached is a survey that I am requesting that the center staff give to JobLink customers on a voluntary basis, without threat of punishment or denial of services, as they exit the Center. I am requesting that all customers be asked to complete the survey and that the college keep a record of a total number of those customers that completed the survey and those customers that did not complete the survey. Attached is a copy of a statement that the center staff may use to read to the customers, or they may allow the customers to read the statement themselves. The letter describes why the data are being collected, what the data will be used for, and how the data will be stored and ensures that the confidentiality will be maintained.

Appendix H: Letter To Colleges (continued)

Enclosed please find 150 copies of the survey document and a copy of the instructions that need to be read to the customers completing the survey. I am requesting that once the survey forms are completed that they are immediately placed in the enclosed envelope and that they be mailed directly to me on a weekly basis. I am looking forward to your response to this request. If you should have any questions or need any additional information, please feel free to call me at (919) 733-7051, ext.456 or e-mail me at deeses@nccccs.cc.nc.us.

Best regards,

Stephanie Deese

Enclosures

Appendix I: Statement To Survey Respondent

_____ Community College JobLink Career Center has been asked to participate in a survey of Community College JobLink Career Centers. I am going to ask you to complete the attached survey regarding your experience at the Center.

RISKS

There are not any risks to you as an individual by participating in the interview.

BENEFITS

Individually you will not receive any benefits for your participation in this survey, however, as a result of your participation, we will have a greater understanding of customer satisfaction with the JobLink Career Centers.

CONFIDENTIALITY

The information in the study records will be kept strictly confidential. Data will be stored securely and will be made available only to persons conducting the study unless you specifically give permission in writing to do otherwise. No reference will be made in oral or written reports which could link you to the study.

COMPENSATION

There is no compensation for participating in this study, however, you may gain satisfaction by completing the survey. There is a space for additional comments.

Appendix I: Statement To Customer (continued)

CONTACT

If you have questions at any time about the study or the procedures, you may contact the researcher, Stephanie Deese at the NC Community College System, 5022 Mail Service Center, Raleigh, NC 27699-5022, or (919) 733-7051, ext. 456. If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact Dr. Gary A. Mirka, Chair of the NCSU IRB for the Use of Human Subjects in Research Committee, Box 7906, NCSU Campus.

PARTICIPATION

Your participation in this study is voluntary; you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at any time without penalty and without loss of benefits to which you are otherwise entitled. If you withdraw from the study before data collection is completed, your data will be returned to you or destroyed.

CONSENT

I have read and understand the above information. I have received a copy of this form. I agree to participate in this study.

Subject's signature_____Date _____

Appendix J: Community College Profile

COMMUNITY COLLEGE
JOBLINK CAREER CENTER PROFILE

Center Name:_____

Staff Contact: _____

Please answer the following questions concerning your JobLink Career Center.

2. Describe the Center location. Briefly describe how the center looks?

3. List the Center hours of operation.

4. Describe the resource room and the equipment and materials available to the customers. Does the resource center have a full-time staff person? If yes, is this person a community college person or a partner agency person? How many staff are available to assist the customers?

5. How many computers are available to assist the customers?

6. How long does an average customer have to wait to be seen by the JobLink Career Center staff?

7. How are customers informed, upon their arrival, of services/resources, contact persons and referral information?

8. Are the self-service facilities clearly marked?

9. How does a customer know if they are receiving self-services?

10. How long does a customer wait to use the self-service facilities?

11. What tools has the JobLink Career Center developed to identify the services needed for job seekers?

12. Does the comprehensive center provide the federally required core services specified in section 134(d)(2) of the law? *(Please check all that apply).*

____Eligibility determination	____Outreach, Intake, Orientation	____Assessment
____One-Stop Performance Information	____UI Claims	____Financial Aid Information
____Training Information	____Follow-Up ____	____Job Search, Placement, Counseling
	____Job Information	____Referrals

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Sign here, → please

Signature: Stephanie Deese

Printed Name/Position/Title: Stephanie Deese, Director of Workforce Initiatives

Organization/Address: North Carolina Community College System, 5022 Mail Service Center, Raleigh NC 27699-5022

Telephone: 919. 733. 7051 x 456

FAX 919.715.5794

E-Mail Address: deesess@nccccs.cc.nc.us

Date: April 10, 2003

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